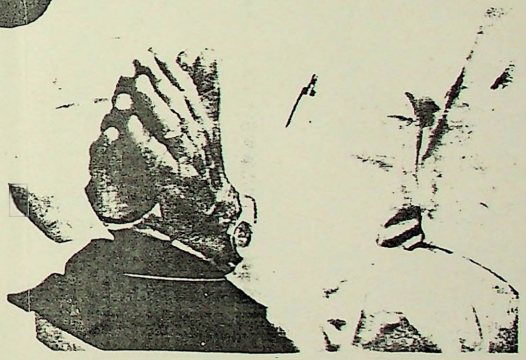
BLITZ PLUS

AUGUST 31, 1991

SCIENCE OF ACUPRESSURE

PRESS AND HEAL



DEVENDRA VORA : Acupressure is his mission

ACUPRESSURE is unique. It is a simple treatment to perfect health. Devendra Vora, a prominent acupressurist based in Bombay, says that electric current, *chetana*, passes through the body. If this current does not reach any part of the body, there is pain or disease. Thus if proper current is sent to the affected part the pain will subside or the disease cured.

The "switchboards" of this electric circuit is on the palms and the soles of the feet. Treatment merely means applying pressure or massaging these points. Pressure is applied by the thumb and first finger on the points for four to five seconds at one-to two-second interval's — to be repeated for one to two minutes in a pumping action. Treatment can be taken three times a day for any disease and continued till the pain on that point is gone or the disease cured.

Vora was a successful businessman but "retired" to devote himself to his mission of propagating acupressure for people's well-being. He is grateful to the Arya Samaj in Santa Cruz which put its entire centre at his disposal. No fees are charged for treatment, no appointments are necessary. Others Rs. 25 is charged for classes and this is donated to the Arya Samaj.

Vora's marvellous book *Healing in Your Hands* de[scribes] com-

These are the two main switchboards, if I may say so, and if properly operated through acupressure distribute this electricity equally to all the organs. This results in good health because "bad health" or disturbance of any organs is an indication that electricity is being unevenly distributed in the body.

From the age of 15 or so, I was afflicted by coughs, colds.

I also visited Tulsa, in the US, where my niece resides. Her husband is an MD, yet their daughter had for a long time been suffering from bronchitis. This was my first patient! I gave her three sittings, after which she vomited out all the phlegm. Her fever came down and she was all right. When her father checked her up he found her cured and encouraged me to con[tinue] the

each of these needles has to be pricked. Most patients say that this treatment works only until it is underway. Thereafter there is no guarantee of him being cured.

It takes six to ten years for any person to become an acupuncturist, but even a kid can become an acupressurist. Here, I ght mention that there is no [illegible] if the wrong point is

They were naturopaths, discarded by the medical fraternity, though one had cured 50 patients of cancer and the other about 150. I blended their treatments with acupressure and it was just like Archimedes's discovery! Now it is possible to diagnose within a few minutes whether a patient has cancer or not.

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Vora's marvellous book *Health in Your Hands* deals comprehensively with acupressure. It is replete with charts, diagrams and photographs, dwelling on a wide range of ailments. **ADRIAN KHARE** and **N. S. MIRAJKAR** interviewed Vora recently. Reproduced below are excerpts.

Q: *WHAT is acupressure and how did you first come upon this method of treatment?*

A: ACUPRESSURE is merely pressure being applied to the palms of the two hands and the soles of the feet. This entire treatment is based upon bio-energy *(pranshakti* or *chetana)*. Electricity flows throughout our bodies, through channels travelling from the tips of the fingers to the head and all the way down to the toes. and if properly operated through acupressure distribute this electricity equally to all the organs. This results in good health because "bad health" or disturbance of any organs is an indication that electricity is being unevenly distributed in the body.

From the age of 15 or so, I was afflicted by coughs, colds and tonsilitis. In 1977 I made a trip to the US and to Montreal where I happened to read a book by Mildred Carter, entitled *Reflexology*. The subject matter caught my attention immediately. I began trying out exercises as an antidote to insomnia. I was astounded with the results.

Then, while travelling from Montreal to New York by bus, I awoke one night with a severe toothache. I, once again, "treated" myself to one of the exercises I had read about. I pressed the little finger of my right hand, the side on which I had the toothache. I got relief within a short while. In fact, for two months after that I had no problem.

A volunteer applies pressure on a patient's forehead

husband is an MD, yet their daughter had for a long time been suffering from bronchitis. This was my first patient! I gave her three sittings, after which she vomited out all the phlegm. Her fever came down and she was all right. When her father checked her up he found her cured and encouraged me to continue the treatment. He was the first medical practitioner to encourage me in acupressure.

Q: *WHAT about your work in Bombay?*

A: IT was after my return from the US that the chairman of my business council mentioned that his mother was lying paralysed in Harkissondas Hospital and asked me to visit her. I went over to the hospital and after a diagnosis explained to those present how the treatment could be given at home. Within ten days of acupressure being applied, the lady began walking.

Another friend's mother had had a heart attack. I told him that her hands should be pressed at specific points. The day after the treatment was taken up, she was discharged from the hospital and she had no problems for the next eight years.

When I returned to Bombay I had begun handing out cyclostyled sheets with charts of the palms of the hand and distributed them among my friends. Seeing the tremendous results of acupressure, the chairman of our council, Manubhai Kothari, collected these papers and sent them to Rajkot where they were published in newspapers.

Q: *IT is said that acupuncture is extremely effective — is it more effective than acupressure?*

A: IN acupuncture there are 72 *nadis* and after diagnosis as to where the disturbance is in any of the "seven seas" a needle is selected — copper, silver or gold. The efficacy of acupuncture lies the depth to which this treatment works only until it is underway. Thereafter there is no guarantee of him being cured.

It takes six to ten years for any person to become an acupuncturist, but even a kid can become an acupressurist. Here, I might mention that there is no side-effect if the wrong point is pressed. I would say that this treatment has been put into the human body by nature. This therapy is capable of solving the world's health problems.

This is the easiest form of therapy, as you can see, and nature has put this into our bodies so that man, the supreme being on earth, can remain healthy and happy. Acupressure cures permanently.

Q: *IS acupressure limited in its scope?*

A: I PUT two questions to my students. The first, find out which part of the human machine is missing, and the second, find a disease for the treatment of which acupressure is not effective.

Let me tell you that it is effective for dreaded diseases like cancer and ones which constantly harass people, the common cold. The WHO has said that the cure for the common cold will not be available till the end of the 21st century. Asthma, muscular dystrophy, drug addiction, smoking and alcoholism can be cured. I would say that one of the biggest advantages of acupressure is that it prevents diseases. A mere ten minutes of palm pressing daily revitalises the body and balances the functioning of the organs. You can feel the difference in 15 days...

Q: *YOU had mentioned about acupressure curing cancer.*

A: YES. Earlier, I studied two books written by eminent — one a German and the other an American who were practising in the 19th century. Though one had cured 50 patients of cancer and the other about 150, I blended their treatments with acupressure and it was just like Archimedes's discovery! Now it is possible to diagnose within a few minutes whether a patient has cancer or not.

Under conventional diagnoses it is not possible to locate the disease until it has developed at least 35%. But, as I said, diagnosis of cancer by acupressure takes a few minutes and it is possible to locate the organ which has been affected.

Then muscular dystrophy. Since this originates in the mind it becomes necessary to "find" the mind of the patient. The late Dr V. G. Rele who wrote *Secrets of the Mind* said that the *Rigveda* carries an excellent analogy with neurology, and reading this I was able to locate the root cause of this disease.

I have seen that the day following the commencement of the treatment the muscular dystrophy stops and within six months 80% to 90% of the problem has been removed.

Q: *IS there anything in acupressure relating to the chakras of the human body as identified by yoga?*

A: THERE is. Actually, there is no difference between the *chakras* and the endocrine glands focused on by acupressure. Palm pressing not only revitalises the body but also all the endocrine glands begin functioning properly. I have shown this in my latest book *Health in Your Hands*.

Q: *HAVE you discovered the pressure points in the palms through your own research?*

A: NO. These points were discovered by our ancestors. There is mention of them in the writings of Susruta 5,000 years ago. It is interesting to find

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MEDICINE

PRESS AND HEAL

Continued from Page 9

[illegible] isolated "Red Indians" in [illegible] 8th century pressed the [illegible] of their feet to cure themselves of various diseases.

[illegible] our own time there is a [illegible] community near [illegible]ata in which the average [illegible] is 80 years. Before going to [illegible] wash their hands and [illegible] thereafter pressing their [illegible] together for a certain [illegible]od of time. Then, it is possible that the Chinese and others [illegible] came to India took away with them this method of treating [illegible]. It is also possible that [illegible] nomadic Aryans took this [illegible] of treatment from India [illegible] across the Himalayas into China, [illegible] to Japan and to Alaska and [illegible] Columbia.

I believe that the "Red Indians" are ancient Aryans and that they knew about acupressure — all we have done is to put it on a more scientific footing. Acupressure is very scientific, if I may put it that way. Even if your mind suggests to you that it will not work, it WILL! It will work because a power point is being pressed. Acupressure has nothing to do with psychology.

Q: *WOULD you call acupressure an unconventional form of medical treatment?*

A: CERTAINLY the mind affects the endocrine glands, but, as I have said, when you practise acupressure, positive results will occur regardless of what your mind tells you!

Now, when any organ is overworked then a layer of carbon is created around it and electricity cannot flow freely in order to reach it. You see, diseases are nothing but friends who come and inform us that a certain organ is damaged and that it needs attention. Acupressure breaks through this carbon to restore the flow of electricity. Thus, it is not wise to overdo acupressure or else all the carbon in the body will be "broken" up and will reach the kidneys damaging them.

Acupressure works on the battery of the body, which is the brain. This battery is recharged during sleep and if it is overcharged then weakness results.

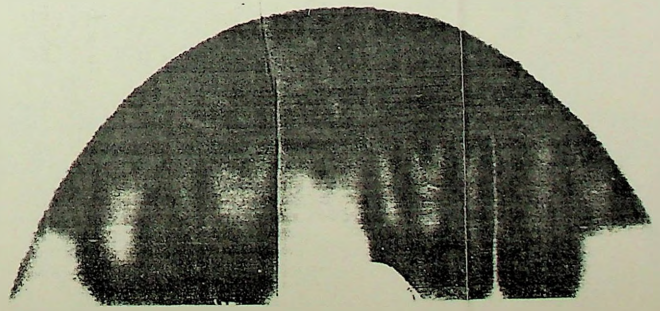
Q: *HOW would you sum up acupressure?*

A: APART from there being no expense (gold, silver and copper charged water is taken only to empower the battery) nothing else goes into the body, as such. Acupressure is basically a science of repair. The addition, if you like, to acupressure are purely from nature. For instance amla powder has concentrated vitamin C 16 times more than a lemon. Then certain biochemical salts have to be added at times, to remove the problem. If the root cause of the ailment is removed and gold- and silver-charged water taken, along with a change in diet then results from acupressure can be up to 95%.

It will not, of course, work if the patient is in the terminal stages of cancer but acupressure can remove the pain and the patient can, at least, die peacefully.

Q: *FINALLY, have you received any aid from government?*

A: NONE at all. The only one to really help me has been Morarji Desai. He tried the therapy when he was the Prime Minister. He was of the opinion that the government should propagate acupressure but before he could act further his government fell. I met him in 1981 and he literally ordered me to write my book. It took me two and a half years and there are two chapters which tell how to cure certain diseases, material which is not available in any other book. I have in my 14 years of work examined 1,25,000 persons and have accurately diagnosed their cases. This is the only therapy where you can become your own doctor!



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INDIAN EXPRESS
(BOMBAY)

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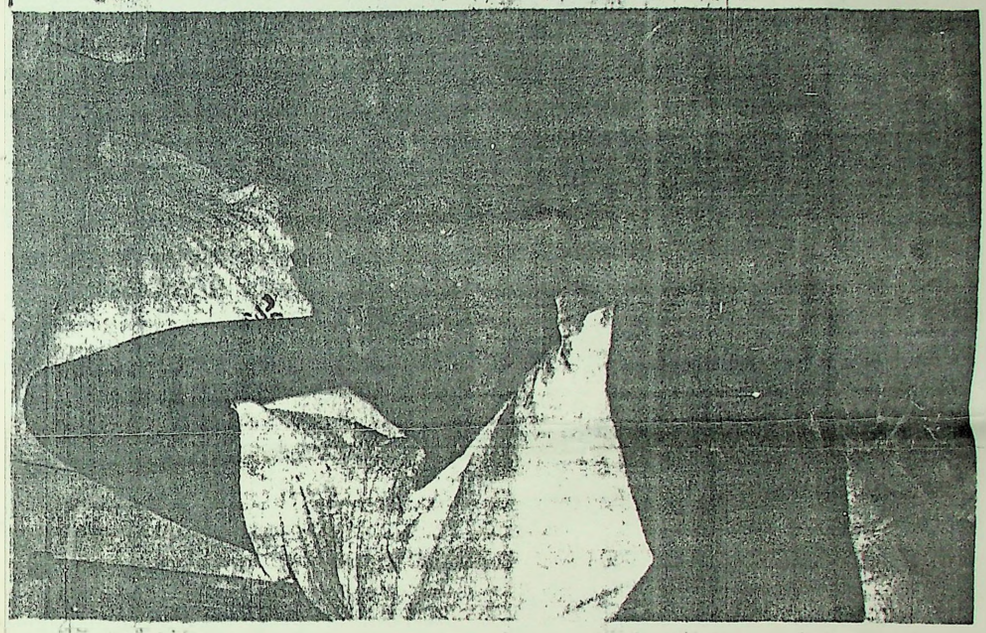
NEEDLING YOUR WAY TO HEALTH

Severely belaboured by the shortage of western trained doctors, Mao Tse Tung was compelled to harness the resources of China's traditional healers. China's national pride remained intact. Fortunately so did acupuncture.

Today acupuncture has developed into a well-established part of the Chinese traditional medical system with its own hospitals manned by five-year trained practitioners exclusively devoted to this form of treatment, say N F Mistry and N M Antia. Among one of its more dramatic recent achievements is its ability to induce anaesthesia for major surgery.



FOLK MEDICINE

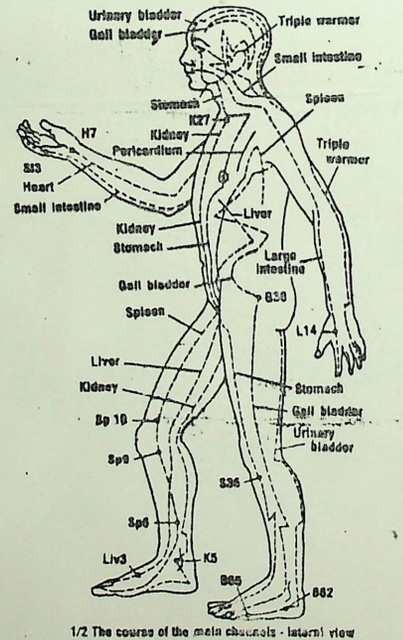
ACUPUNCTURE, first hinted in the 26 AD collection of Li-Chu-Ko entitled "the Yellow Emperor's classic of internal Medicine" is an art of healing founded on prolonged observation and empiricism. It arose from "folk-knowledge dating back perhaps to the Chinese Stone Age around the 2nd and 3rd century BC when it was assumed that people discovered points in the human body which if pressed or punctured with stone needles helped to alleviate pain or produce other effects.

Through cross exchange and widening of experience, more and more points were discovered through which it was possible to influence even the functioning of internal organs. Over a period of time new connections arose between these points and the internal organs. In order to facilitate memory, these points were given names which in accordance with the spirit of the times were only partly anatomical. Today over 722 points are generally acknowledged.

Of particular interest was the fact that numerous widely separated points affected in single organ. Such interconnections between points were called "ching" of "meridians". Such knowledge of the interconnection between skin and muscle on one hand and internal organs on the other was the unique and special discovery of ancient Chinese medicine.

The classification of organs was based on philosphical precepts. The storage organs were classified as the passive (yin) organs and the active ones such as the stomach and intestine were termed as the Yang (active) organs. These organs were interconnected through vessels through which passed the "chi" or energy (literally meaning air or breath). This energy motivated the 'Tao' (law of nature) which was considered as the developmental force behind all phenomena. This energy controlled circulation, ingestion and autoprotection. Imbalance energy either in the form of excess or blockage resulted in the malfunctioning of these organs.

Though never redundant, the resurgence of traditional medicine in 20th century China depended on the outbreak of the Second World War, the famines and the political turmoil that engulfed China in the decades between 1920 and 1950s. Severely belaboured by the shortage of western trained doctors, Mao Tse Tung was compelled to harness the resources of China's traditional healers. China's national pride remained intact. Fortunately so did acupuncture.



1/2 The course of the main channels - lateral view

Today acupuncture has developed into a well-established part of the Chinese traditional medical system with its own hospitals manned by five-year trained practitioners exclusively devoted to this form of treatment. Like the other forms of traditional medicine, acupuncture is resorted to extensively even today by the Chinese public as well as by the allopathic doctors for conditions where its efficacy is well accepted. Among one of its more dramatic recent achievements is its ability to induce anaesthesia for major surgical procedure.

Even though a substantial part of China was occupied by five major western powers for two centuries; it is surprising that acupuncture did not gain their recognition. During the Tang period acupuncture had reached Japan, Korea and India. The first account of it to appear in Europe was in London in 1833 by the Dutch doctor Ten Rhyne. However these and other subsequent publications were mere curiosities rather than scientific works. The first scientific treatise was P Dabry's book "*Medicine Amongst the Chinese*" published in Paris in 1863.

Its acceptance in the western world however was completely submerged due to several reasons such as the ascendancy of the rapidly curative allopathic system of medicine, its emphasis on anatomy and its rapid dissemination into the East through western colonisation - military, political and religious. The inadevertent or deliberate subjugation of cultural and ethnic identity of the colonized world held at bay the development of most traditional arts and practices of healing. Indeed in our country at the turn of this century the translation of the *Charaka* and the *Sushruta Samhita* which took over 15 years to accomplish was ordered destroyed by our colonial masters as a monumental waste of paper.

Attempts to understand acupuncture on western framework of either logic or experience failed since the description of the points and meridians harboured no similarity or reference to anything described by Western dissective anatomy. Even as late as 1968 a reputed publication of Hamlyn *An illustrated history of Medicine*, disparagingly noted that the "Chinese did not learn their surface anatomy in a rational way".

Only the formidability of China as a political and a military power opened up channels of communication with the western world and fuelled the interest of western medicine in acupuncture. Today committees sit in the WHO to formulate international acupuncture nomenclatures to facilitate teaching research and clinical practice of acupuncture as well as exchange of information globally. Its recent popularity in India despite its long association with China merely followed the recognition awarded by western world.

The experience of Ralph Cloward an American neuro surgeon which was personally conveyed to one of the authors during one of his visits to Bombay is highly instructive. Cloward was one of the first US surgeons to visit China after the Second World War. He acknowledged that like his colleagues he also had disbelief in the claims made by these oriental practitioners who punctured the body with needles inserted at various anatomical points called 'meridians'.

It neither fitted the anatomical, pathological or neurological concepts of the existing allopathic concepts of the medicine based on existing western scientific knowledge and reasons and was hence relegated to 'unscientific oriental mysticism akin to yoga and the Indian rope trick. Imagine his surprise and shock when he was demonstrated the removal of a brain tumour without any anaesthetic aids except the use of acupuncture. His story of the actual procedure goes as follow:

"The patient, a middle aged woman, was wheeled into the operation theatre after being informed that a foreign surgeon was going to be in the gallery to observe her operation under acupuncture. On entering the theatre the patient looked at me in the gallery and in the usual Chinese manner greeted me with the clapping of her hands. No injections, no drips or local infiltration anaesthesia was used except for an acupuncturist inserting needles into her.

The surgeon opened the skull, removed a large meningioma (a tumour of the meninges) and then closed the wound. The patient was conscious during the whole procedure but revealed no evidence of pain or discomfort. At the end of the operation and before the patient was wheeled out of the operation theatre she looked up at me, smiled and clapped her hands again to demonstrate her pleasure."

Since then visiting surgeons

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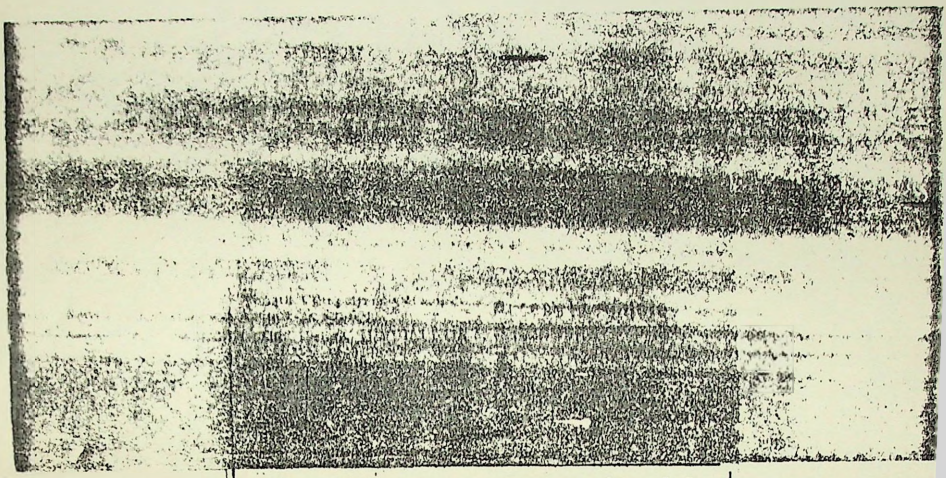


Needling your way to health

Continued from page 1

have observed a variety of surgical procedures under acupuncture anaesthesia including opening of the chest for thoracic surgery without any evidence of paradoxical respiration due to mediastinal shift. While no operation under acupuncture anaesthesia has been personally observed by us in China, one of the authors during a visit to that country was shown a film on *thyroidectomy* at the acupuncture hospital in Chengdu in which the patient could speak during the actual surgery. He also observed Colonel Rao using acupuncture anaesthesia for a hernia repair at the Armed Forces Medical College in Pune.

Whether acupuncture can replace modern anaesthesia is not the contention. These experiences have demonstrated that acupuncture undeniably produced remarkable effects which could not be explained under the then available western knowledge of anatomy and pharmacology of the nervous system. That the scepticism of western scientists could only be dispelled after the discovery of nature's own pain relievers the endorphins and enkephalins (morphine like compounds) is not only a reflection of the limitations of western science in explaining phenomena well described and practised by other races, but also on the scientists themselves who fail to appreciate the limitations of their science.

The West has by and large failed to acknowledge the achievements of oriental science and the debt it owes to the East. Joseph Needham, the scholar of Chinese science has demonstrated that possibly more than half the basic inventions and discoveries upon which the modern world rests come from China. And yet, few people know this. Why? Their refusal to accept and learn from the far older civilizations just because their explanations are both literally as well as metaphorically in a language different to their own, is akin to the intolerance which they themselves suffered at the hands of the Christian church in the pre Renaissance period in Europe.

This attitude of the West is contrary to the very essence of the scientific thinking and culture which it expounds. While the narrow dissective and quantitative approach of western science may now have provided an explanation at the molecular level as to why acupuncture works, the holistic approach based on the repetitive observations of an enquiring mind was able to define as well as effectively utilize this interesting phenomenon for several thousand years without worrying about the molecular basis of its action.

This is not to decry the usefulness of the dissective approach but to emphasise that oriental science and scientists utilizing a holistic approach could through experimentation combined with careful observation achieve profound discoveries in many fields. Yoga and Ayurveda are examples in our own country.

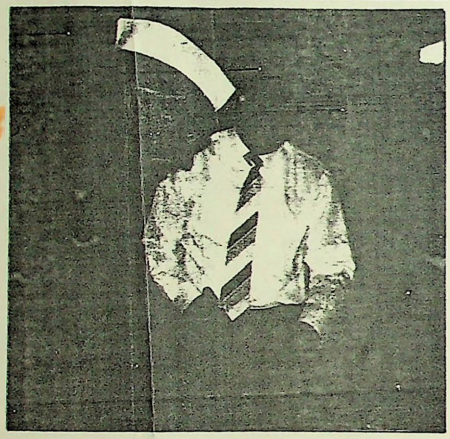
Unravelling the mysteries of acupuncture

This ancient science of healing could be of great use in this country which has such a shortage of trained medical personnel. TERESA VIJU JAMES meets Dr BK Singh, the director of the Indian Acupuncture Centre

THE acupuncture technique of medical treatment is a part of traditional Chinese medicine. The therapy involves the insertion of very fine metal needles into the skin at specially designated points. Sceptics have often dismissed the treatment of disease by acupuncture as quackery. The same sceptics have explained away verified cures as the result of spontaneous recovery, good nursing or psychological reaction. But there are definite areas where even sceptics have to admit that the system works. Prof Bhupinder Kumar Singh is the director of the Indian Acupuncture Centre at Allahabad, which has been in existence for about ten years.

"My first exposure to acupuncture came from an article in the *Reader's Digest*," says 43-year-old Singh. Singh kept his interest alive and after completing his MBBS, began concentrating on this line of treatment. Singh explains that there are two approaches to acupuncture. The first, the traditional approach relies on the five elements theory. It is based on the Taoist philosophy according to which good health depends on a free circulation of 'Chi' or life force energy throughout all the organs. This energy is either Yin (negative) or Yang (positive). It further propounds the belief that the elements like air, fire, water, etc, are related to parts of the body and have both destructive and constructive centres. Disease affects the free circulation and acupuncture restores it. The modern theory concentrates on the efficacy of acupuncture as an effective pain killer.

"There are naturally occurring opiates in the body," explains Singh. "This is released into the system and the pain is killed. Addicts take several morphine derivatives; this means that the body's natural opiates are stopped. This, according to Singh, is the reason



Vice president SD Sharma releasing Dr Singh's (right), recent book on acupuncture

one of the problems very successfully treated through acupuncture. There is what is known as the Gate Control Theory in acupuncture. An injury on any part of the body is translated into pain when it is received in the brain. The message passes through 'gates' to reach the brain. In accupuncture we try to produce non-painful stimuli by needling. This blocks the gate and the sensation of pain is not conveyed to the brain.

Singh has put forward several new theories and presented over 35 papers touching on every subject and to audiences all over the world. His pet theory centres around the statement that acupuncture actually

One of these relies on the *modus operandi* of witch doctors and ancient spiritual healers. When a sick person was brought for treatment to them they beat the patient with some twig or implement. The possible puncturing of the person's body and the repeated stimuli brought about therapeutic relief. Later on, the more intelligent of the witch doctors and medicine men developed the traditional acupuncture points. There are about 800 acupuncture points arranged along 14 lines or meridians running the length of the body from head to foot," says Singh. Most Chinese books describe meridians under five headings viz main,

and in the area of acuvaccination or prevention of disease. It has been claimed that acupuncture works by stimulating or repressing the automatic nervous system. Cases are on record of British and American physicians performing surgery on fully conscious patients capable of conducting a conversation.

Like all modern day acupuncturists, Singh uses the electro-acupuncturescope to activate a defective meridian. This Chinese made gadget is operated with a nine-volt battery and is capable of stimulating certain points. "There are no drugs used in acupuncture," says Singh. On the contrary, patients who are on drugs like steriods for long periods experience delayed response from acupuncture. "It is essential for me to taper the use of steriods, for acupuncture to begin to take effect. In cases like these the patient sometimes loses patience in the treatment."

"There is no ailment for which a cure is not available in acupuncture," says Singh. Certain diseases take a long time to cure — like polio, paralysis, progressive muscular dystrophy, epilepsy, Parkinson's disease and pigmentosa. Acupuncture has been put to effective use in ailments like arterio-sclerosis, hypertension, premature balding and spondylitis." Singh has contributed his own points to the science. Two of these termed Bhupendra's T 1 and T 2 provide cure for males whose semen contain no sperm. Bhupendra's 'N' is a nasal stimuli used in the treatment of sinusitis.

"The effects of treatment can be felt in 15 days," says Singh, who runs both an out patient and stay in hospital at Allahabad. "Most patients can be treated as out patients," says Singh. Singh's charges are modest by city standards and a fortnight's treatment with the needles lasting 45 minutes a session costs about Rs 1,500.

What role does acupuncture play in a country where all the other systems of medicine put together barely cover a half of the population?

To date the nearest the government has come to taking an interest in this area of medicine was when Shri Shankar Dayal Sharma released Singh's book. "I met Mohsina Kidwai, minister of health and they wanted to try it in government hospitals; I refused because it is a system of medicine like ayurveda and not something just to be tried."

Acupuncture has a long way to go before it gains total acceptance in this country. It certainly seems worthwhile to explore the areas where it is effective, and put those to use in a country where there is an acute shortage of trained medical personnel.

CHAPTER 7

Acupuncture and moxibustion

I. Theory and practice

Wei Ru-Shu[1]

Acupuncture and moxibustion have been applied as therapeutic medical techniques in China for at least 2000 years since the time when stone knives and other sharp instruments were used. Because of the wide indication of these therapeutic procedures, the simplicity of their application, their minimum side-effects, and their low cost and rapid effect they have permanently remained popular.

Acupuncture is an apparently simple clinical procedure for inducing stimulation in various locations of the body to treat disease and alleviate pain. The term itself is derived from the Latin words *acus* (a needle or pin) and *punctura* (a pricking).

Channels, collaterals and acupuncture points

Acupuncture requires knowledge of the system of anatomy and pathophysiology which is inherent in Chinese traditional medicine. The human body is thought to be pervaded by a system of energy channels or *jing luo*, in which vital energy or force circulates. The majority of the acupuncture loci are in these channels, although systems of loci are also located on the human ear, forming the basis of so-called auriculo-acupuncture.

Some practitioners of acupuncture still adhere strictly to traditional Chinese medical theory, while others use acupuncture empirically, without reference to the Chinese theory, and strictly in accordance with Western-style diagnosis and concepts of pathophysiology. Internationally there is a diversity of opinions regarding the techniques of acupuncture, the prerequisite qualifications of an acupuncturist, the usefulness of the notion

[1] Professor of Internal Medicine, Institute of Acupuncture and Moxibustion, Academy of Traditional Chinese Medicine, Beijing, China.

of channels, and the specificity of acupuncture points in acupuncture therapy.

In the network of channels and collaterals, the channels constitute the main trunks which run longitudinally and deeply in the body and relate to each viscus, while the collaterals which represent the branches of the channels run transversely and superficially from the channels.

The system of channels and collaterals includes the 12 regular channels, the 8 extra channels, and the 15 collaterals. A crisscross network of channels and collaterals in which blood and *qi* (vital energy) circulate is spread over the body. Internally they connect with the viscera and externally with the four extremities and the superficial tissues and organs. Their action is to regulate the function of different organs, transport blood and vital energy and connect external with internal organs, thus making the body an organic whole. Dysfunction of the channels and collaterals is an important cause of disease.

An acupuncture point is the site where acupuncture and moxibustion are applied. Points may be either on the regular channels or on the extra channels; the latter are called *ahshi* points. Over 360 points have been identified along the 14 channels. The points which are not on the 14 channels but have specific therapeutic properties are called extraordinary points and number several hundreds. The tender or sensitive spots on which acupuncture and moxibustion are applied are also termed *ahshi* points. Points are not only the pathways for the circulation of nutrient *qi* and defensive *qi*, and the focus of common vital energy, but also represent the points of entry of pathogenic elements, the locus of response to diseases and the site of treatment. Every point has its own therapeutic property.

Three indications are used for selecting points. First, the distal points; according to the principle of minute differentiation of the symptom-complex the points of some channels which are directly connected with the affected viscus or have an interior or exterior relationship to the involved part, named the distal points, are those most frequently used. Secondly, the points which are at the site of the disease or adjacent to it and are termed local points; and thirdly, the empirical points which are specific for certain diseases and sometimes represent *ahshi* points. These three methods of selection are often used in combination. The action at the point is to remove any obstruction of the channels and collaterals, regulate the circulation of vital energy and blood, and adjust the function of visceral organs and the yin-yang balance. By this means bodily resistance to exogeneous pathogens is enhanced and diseases can be combated.

Technique

Thin filiform needles are inserted into various parts of the body for the intended treatment of a variety of disease states and, since 1958, for inducing analgesia for surgical procedures. The needles are usually left *in*

situ for 15–30 minutes or longer. They may be manipulated by hand in twirling or push-pull movements and may be electrically activated by pulsatile electrical stimulation. It has been claimed that an acupuncture-like effect can also be obtained by deep finger pressure, so-called acupressure. Other more recent approaches to the stimulation of acupuncture points include the use of ultrasound and lasers.

Moxibustion represents a special form of point stimulation. The procedure involves burning a piece of the Chinese drug plant, *Artemisia vulgaris*, either on the head of the acupuncture needle so as to conduct heat into the body, or in some cases actually on the surface of the skin. The importance of this procedure can be seen from the Chinese term for acupuncture, *zhen diju*, which literally means "needling-moxibustion".

The therapeutic methods of acupuncture and moxibustion

There are many therapeutic methods which make use of acupuncture and moxibustion. Beside the traditional ones which are still widely used today, new methods developed by combining modern scientific techniques with the traditional Chinese acupuncture and moxibustion are constantly being introduced. These include electro-acupuncture therapy, low frequency electric therapy, point injection with minimal doses of drugs, point magnetic therapy, catgut imbedding into the point, and point laser radiation. Some examples of the current practice of acupuncture therapy, finger pressing therapy or acupressure, and moxibustion are briefly given below:

Acupuncture needles. There are filiform needles, three-edged needles, plum-blossom needles and ear needles, all generally made of stainless steel. The filiform needle is the main one used in ordinary clinics and has various lengths (1.0–15 cm) and diameters (0.27–0.46 mm).

The filiform needle is selected according to the depth of the site of the disease, the thickness of the muscle and skin, and the required depth of insertion. Depending on the degree of the sensation of soreness, numbness and distension manifesting itself, either reinforcement is applied to *xu* or the insufficiency syndrome, or reduction applied to *shi* or the syndrome of excess. For those diseases in which neither *xu* nor *shi* is clear, both manipulations may be used.

The three-edged needle is applied for purposes of blood-letting, and often for patients with high fever.

The plum-blossom needle is used for tapping and exploring the skin of the affected area and its adjacent parts.

The ear needle is employed for press acupuncture at the sensitive point of the corresponding region of the ear which is then compressed and the needle fixed with adhesive plaster.

Finger-pressing therapy or acupressure. This method is used to treat disease by pressing the points with the thumb or middle finger or with the

free edge of the finger nail. For example, pressing at *renzhong* may relieve an attack of epilepsy, fainting and shock; pressing at *hegu* may stop toothache and check an attack of asthma, pressing at *fengchi* may abolish dizziness and peculiar sensations in the head.

Moxibustion. The main material currently in use is moxa wool or moxa wool mixed with Chinese herbs which can stimulate the energy flow in channels and collaterals, ameliorate syndromes arising from cold or wind, and promote the circulation of blood and vital energy. The moxa wool, shaped into a moxa stick (20cm long and 1.4cm in diameter), is made of dry moxa leaves (*Artemisia vulgaris*) ground into a cotton-like substance with any impurities removed.

The methods of application vary and are summarized as follows:

(*a*) Moxibustion with moxa cone: there are two kinds, the direct and the indirect; the smallest cone is like a grain of rice, with the diameter at the base 0.4–0.7cm and the height 0.3–1.0cm. Direct moxibustion is performed by placing the cone directly on the point and then igniting it. Two varieties are used; scarring and non-scarring moxibustion. Indirect moxibustion is also called partition moxibustion since some materials such as ginger, garlic, salt, onion, aconite and monkshood are placed between the cone and the point.

(*b*) Moxibustion with moxa-stick: the ignited moxa-stick (2.0cm long) is placed on the top of the needle handle, or else a piece of moxa wool is so placed, and when the needle has been inserted into the point the moxa is ignited.

The indication for moxibustion is mainly "insufficiency *xu* syndrome" and "cold syndrome". Moxibustion at *zusanli* and *guanyuan* points is said to improve general health.

The basic theory of acupuncture and moxibustion

Acupuncture and moxibustion are not only simple practical skills. They are governed by a comprehensive theoretical system which guides the clinical practice. The theories are based on the concept of yin-yang; the five elements—viscera, channels and collaterals, *qi* (vital energy) and blood. The etiology derives from the theory relating to the viscera: channels and collaterals constitute the core. A good clinician and practitioner of acupuncture and moxibustion applies the above theories. In practice he will ascertain symptoms and signs through a carefully taken case history and appropriate physical examination. A review of the clinical findings enables the practitioner to determine whether the ailment is exterior (muscle or skin, collateral) or interior (yang, yin viscus; *fu*, yang viscus; or channel), in the blood or *qi*; and to differentiate further the nature of the disease such as *xu* or *shi*; cold or heat, yin or yang. By these means minute etiological

differentiations can be made and the practitioner can accurately treat the disease and achieve a desirable result.

Indications

Acupuncture is used clinically in several ways, as a primary treatment or in combination with other therapeutic methods, and as an adjunctive treatment.

The textbook, *An Outline of Chinese Acupuncture* (*1*), gives a comprehensive list of indications for the treatment of diseases with acupuncture. These are listed as follows:

(a) Medical diseases. Common cold, influenza, bronchitis, bronchial asthma, heat stroke, pain in the gastric region, spasm of the diaphragm, infectious hepatitis, acute enteritis, dysentery, cardiac diseases, hypertension, shock, strained neck, malaria, arthritis.

(b) Surgical disorders. Lumbar pain, shoulder pain, elbow pain, tendon sheath diseases, sprain of the lower extremities, acute appendicitis, diseases of the biliary tract, mastitis, furuncle, acute lymphangitis, simple goitre and hyperthyroidism, haemorrhoids, prolapse of rectum.

(c) Gynaecological and obstetrical disorders. Irregular menstruation, amenorrhoea, pelvic inflammatory diseases, prolapse of uterus, morning sickness, malposition of fetus, prolonged labour, lactation deficiency.

(d) Paediatric diseases. Whooping-cough, infantile malnutrition, acute infantile convulsion, chronic infantile convulsion, parotitis, poliomyelitis.

(e) Diseases of the sense organs and neighbouring structures. Acute conjunctivitis, photophthalmia, myopia, atrophy of optic nerve, tonsillitis, pharyngitis, chronic rhinitis, chronic sinusitis, toothache, deaf-mutism.

(f) Nervous and mental disorders. Apoplexy, paraplegia, epilepsy, headache, trigeminal neuralgia, facial paralysis, sciatica, multiple neuritis, neurasthenia, hysteria, schizophrenia, intercostal neuralgia.

(g) Urogenital disorders. Enuresis, retention of urine, spermatorrhoea and impotence, infections of the urinary tract.

The inclusion of specific diseases in the list is not meant to indicate the effectiveness of acupuncture therapy, but rather the extent to which it is currently being applied. Furthermore, this list of indications is based on clinical experience and not necessarily on controlled clinical research.

There are certain specific contraindications to the use of acupuncture. These include pregnancy when associated with diseases otherwise amenable to acupuncture, needling of tumour sites, skin infections, presence of a cardiac pacemaker, and coexisting haemorrhagic diathesis such as haemophilia. The risks attendant to any kind of needle insertion into the body are also acknowledged, particularly in areas where puncturing of vital

structures could inadvertently occur. Reliable diagnosis according to general standards of medical practice is essential in the clinical application of acupuncture therapy to ensure the appropriate treatment of disease. Further research into the clinical indications and contraindications of acupuncture is considered essential.

Particular note should be taken of the use of acupuncture to effect anaesthesia. The term acupuncture anaesthesia is in fact a misnomer, since the procedure produces an absence of pain sensation, but not other senses, such as temperature, touch, and pressure. Acupuncture anaesthesia should therefore be more correctly termed acupuncture analgesia. Both terms are, however, freely applied.

In the People's Republic of China, 15–20% of all surgical cases are said to be performed under acupuncture analgesia. In other countries, including Austria, the Federal Republic of Germany and the United States of America, acupuncture analgesia has also been used in surgery with success. The limits on acupuncture analgesia in countries other than the People's Republic of China seem to result from lack of suitably trained medical specialists as well as some degree of opposition from the medical establishment. The overall success rate with acupuncture analgesia in diverse surgical procedures is said to be between 70% and 80%, thus leaving a considerable number of patients who require Western-type anaesthesia. Acupuncture analgesia is considered a valuable addition to the therapeutic armamentarium of the qualified anaesthesiologist.

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II. Research in acupuncture

Robert H. Bannerman[1]

During the past decade, knowledge stemming from research in physiology, biochemistry and pharmacology on the one hand and knowledge from research into the mechanisms of acupuncture on the other have tended to converge. It is interesting to note this convergence of modern international science with traditional Chinese medicine.

Important advances have been made in our understanding of the mechanisms of acupuncture, particularly analgesia. In terms of modern medicine, the principal action of acupuncture and moxibustion is to regulate the function of the human body and to increase its resistance by enhancing the immune system and the antiphlogistic, analgesic, antispastic, antishock, and antiparalytic abilities of the body.

In establishing future policy for research in acupuncture, it will be necessary to consider the integration of basic and clinical research. Clinical research requires the foundation provided by the basic sciences, while basic scientific endeavours may be informed by clinical experience. Certainly clinical trials, analogous to the procedures for testing new pharmacological agents, are urgently needed to further the acceptability of acupuncture.

Great progress has also been made in clinical research on acupuncture analgesia, which has been used during surgery on more than 2 million patients in the People's Republic of China. In over 100 different types of operation, its effects have been found to be comparatively stable in 20 to 30 kinds of common operation. Generally, acupuncture analgesia is thought to be more effective in head, neck and chest surgery. It has also been used with satisfactory results in subtotal gastrectomies, splenectomies, total laryngectomies, and open-heart surgery under extra-corporeal circulation. Large numbers of abdominal tubal ligations are done under acupuncture analgesia, and over 80% have been rated as very satisfactory.

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Several animal experiments and clinical studies have been performed to elucidate the mechanisms of acupuncture analgesia and advances have been made in studying the role of the nervous system in such mechanisms. In the past two or three years, Chinese scientists have succeeded in developing techniques for the isolation, extraction and determination of endogenous morphine-like substances, as well as for artificially synthesizing the highly active substance encephalin and its derivatives. Experiments in both man and animal have shown that the analgesic effect of acupuncture may be partially antagonized by the morphine antagonist naloxone.

However, many problems concerning the mechanism of acupuncture and acupuncture analgesia have yet to be elucidated. All of the above studies point to the need for further exploration, application and research on acupuncture. These are important not only for the health and welfare of the people but also for the progress of medical science.

Training

Since acupuncture may be considered as part of the practice of medicine, it is necessary to define suitable standards for acupuncture training. Training must be addressed to the different needs of various kinds of trainees, i.e., basic scientists, primary care physicians, health specialists or auxiliary health personnel. It has been estimated that a Western-trained physician may require no more than three months' training to learn acupuncture in theory and practice. Those who follow the three-month Chinese programmes in acupuncture are generally able to study the identification and use of some 300 basic acupuncture loci. The programme also covers the treatment of common ailments both in theory and in practice as well as traditional Chinese medical theory, including yin and yang and the theory of channels and vital energy. Some time is also spent on scalp and ear acupuncture, on the pathogenesis of disease, and on acupuncture mechanisms according to traditional Chinese concepts.

Internationally, acupuncture training is heterogeneous, reflecting different views on what acupuncture is, how it should best be practised, who should be authorized to practise it and under what circumstances. The country reports from Asia and Europe give an impression of the diversity of training policies and programmes. The more standardized pool of trainees at present is composed of those physicians who have trained in the People's Republic of China. It is generally felt that the traditional Chinese techniques and theoretical approach must be combined with established Western approaches to the diagnosis and treatment of disease.

In the People's Republic of China, while medical school graduates are given both theoretical teaching and clinical experience of traditional Chinese medicine, including acupuncture, they are also taught Western-type concepts of the anatomy, pathophysiology, diagnosis and treatment of diseases. It has been estimated, however, that approximately

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20% of the students graduating from medical colleges are trained primarily in traditional Chinese medicine. Doctors trained in traditional medicine work throughout the Chinese health care system in hospitals, clinics and specialty areas, and also in primary health care.

The Chinese health workers who have been called "barefoot doctors" in rural areas and "red medics" in urban areas are also taught acupuncture for a limited number of common ailments such as the common cold and influenza, common skin diseases, neuralgias, sciatica, etc. These health workers constitute an extremely important link between the Chinese population and the more specialized or institutionalized levels of the Chinese health care system. It is significant that such health workers practise an integrated form of medical care, including acupuncture.

In a few countries, training is provided for the most part in private institutions, under the supervision of an *ad hoc* professional body involved with acupuncture, or else on an apprentice/teacher basis. Most other countries do not offer any significant form of acupuncture training at present.

Technology transfer and impact on health care

The development of acupuncture as a safe and clinically useful technique depends largely on international transfer and exchange of information and skills. At present, scientific research and communication in this field are still hampered by limited dissemination of information. For example, acupuncture literature is only sporadically represented in standard computerized medical information systems, such as MEDLINE. There is, as yet, no centre where information on acupuncture from international sources is stored and compiled for use by interested investigators. Nomenclature is another important question. In many medical fields, terminology has been standardized on an international basis as far as possible. However, in acupuncture, a variety of systems are used in different countries for the designation of acupuncture loci, and other technical terms also are translated in various ways. This difference in terminology hinders international scientific communication, and steps must be taken to remedy it.

Most research efforts in the field of acupuncture have been made in the People's Republic of China, but access to Chinese literature is limited by its relative unavailability in other languages. No concerted attempt has yet been made to translate the bulk of this material into the major Western languages.

Another serious obstacle to the transfer of knowledge about acupuncture is the antagonistic attitude of many medical colleagues and allied health professionals towards accepting acupuncture therapy as a medical practice. This scepticism is paralleled by an ignorance on the part of the general public which makes patients in search of treatment easy prey for

unscrupulous or uninformed practitioners of acupuncture. This difficulty is compounded by problems of manpower development and the lack of high-quality educational programmes which would ensure a consistently high level of research and clinical care.

Clearly, educational programmes for the dissemination of available knowledge and research data are of great importance; and here, NAPRALERT (natural products alert), the computerized system for the surveillance of world literature on the chemistry and pharmacology of natural products that is described by Farnsworth in Chapter 18, could well make a major contribution. Other programmes might be organized to reverse the unfavourable attitudes of medical professionals and to educate the public concerning the safety of the procedure, its indications and its limitations. The elimination of quacks and unscrupulous or uninformed practitioners, thus ensuring a high level of clinical ethics and practice, would do much to make acupuncture respectable. Obviously, a greater degree of international cooperation is required in teaching, education and research on this subject and also in the control of acupuncture practice.

The problem of control concerns mainly the diversity of national regulations dealing with the practice of acupuncture.[1] In some countries, acupuncture is prohibited. In others, regulations for its practice are completely lacking. Some nations stipulate that only physicians may practise acupuncture, while others consider it as suitable only for research at the present time. Some countries license "doctors of traditional medicine" regardless of whether they are physicians or not. Other nations, such as the People's Republic of China, recognize acupuncture as an acceptable medical practice for all types of health care personnel. Clearly, there is a need in many parts of the world for more careful formulation of policies concerning the regulation of acupuncture.

The transferability of acupuncture to countries with differing social, cultural, and medico-legal conditions requires careful consideration. Yet, as described above, acupuncture has already attained a firm foothold in certain countries of Asia, Africa, Europe and the Americas. Established international agencies could play an important consultative role in such efforts.

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A Meta-Analysis of Acupuncture for Chronic Pain

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Patel M (Route de Saint-Loup 4, 1290 Versoix, Switzerland), Gutzwiller F, Paccaud F and Marazzi A. A meta-analysis of acupuncture for chronic pain. *International Journal of Epidemiology* 1989, 18: 900–906.
Results of 14 randomized controlled trials of acupuncture for chronic pain were pooled in a meta-analysis and analysed in three subgroups according to site of pain; and in two subgroups each according to type to trial, type of treatment, type of control, 'blindness' of participating agents, trial size, and type of journal in which results were published. While few individual trials had statistically significant results, pooled results of many subgroups attained statistical significance in favour of acupuncture. Various potential sources of bias, including problems with blindness, precluded a conclusive finding although most results apparently favoured acupuncture.

While acupuncture is increasingly used by the general public and treatment costs are often reimbursed by health insurance companies, its clinical efficacy remains scientifically unproven.[1,2] This study was undertaken to investigate the hypothesis that the individually inconclusive trials performed to date might, when their results were pooled in a meta-analysis (MA), yield a more definitive result.

MATERIAL

This MA is based on results of all trials of acupuncture for treatment of chronic pain, published in English, listed in Index Medicus from 1970 onwards that were randomized controlled trials (RCTs) of chronic pain that measured outcome in terms of number of patients whose condition improved. The World Health Organization's collection of (English language) Chinese, traditional, and alternative medical journals and literature yielded additional trials. References were obtained from previous reviews[3,4] and from Catherine Hill's, as yet unpublished, excellent and comprehensive bibliography.

Trials were discarded if they were uncontrolled,[5] not randomized[7–14] or did not measure results in terms of numbers of patients improved and provide the number of patients randomized.[11–16] A complete list of excluded trials is not presented.

Published study plans of the selected RCTs are summarized in Table 1. Few published baseline data after randomization.[17] Additional technical,[18] methodological[19] and paradigmatic[20] problems in evaluation of alternative medicine have been reviewed elsewhere.

Formula acupuncture (FA) uses a set of fixed points repeatedly. Classical acupuncturists (CA) traditionally vary points used from patient to patient, and from treatment to treatment. Most trials achieved 'Teh Chi' or a 'needling' feeling, ie numbness in the area of the needle, proof that a point has been located correctly.

The 'control' was sometimes a continuation of medical treatment. Although these RCTs focused on chronic rather than acute pain, thus reducing the probability of remission, use of continued conventional treatment controls is still unsatisfactory. Transcutaneous neural stimulation (TNS) was often used, sometimes on acupuncture points. Treatment of chronic pain with medical placebo (sugar pills) was not performed. Placebos most frequently used included placebo acupuncture and mock TNS. Clearly, blindness of patients was possible only when placebo acupuncture was used. Relative costs were not mentioned in any trial.

METHOD

Meta-analysis[21,22] is a set of methodological techniques used to define accumulated knowledge by pooling results of studies.[23] Methods used differ according to homogeneity of study outcome. RCTs selected were tested for homogeneity using the 'Q' statistic.[24] The overall pooled risk difference and its 95% confidence interval (CI) between acupuncture and control groups was evaluated on the basis of a 'random effects' model, necessary as a result of the lack of underlying homog-

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TABLE 1 *Acupuncture studies*

Site of pain	Treatment group		Number in groups		Number pats. better		Test of significance	Retest reliabilities	Blindness
	Experimental	Control	Exper.	Control	Exper.	Control			
Low back pain	CA, EA	Delayed acupuncture	25	25	19	5	No	**	None
Low back pain	FA	TNS on acupuncture pts	50	50	29	23	NS	NS	Patients
Low back pain	EFA	Placebo acupuncture	15	15	6	5	No	NS	Patients + evaluators
Low back pain	FA	TNS on acupuncture pts	12	cross over	8	6	NS	NS	None
Low back pain	CA	Lidocaine injection + placebo acupuncture	95	cross over	26	22	NS	NS	Patients + evaluators
Chronic facial pain	CA	Placebo acupuncture	20	cross over	12	9	*	NS	Patients
Neck pain	CA, ECA	Medical (continued)	15	15	12	2	No	**	None
Headache	CA, EA	Medical (continued)	55	cross over	24	9	No	**	None
Headache	FA	Placebo TNS	25	23	8	6	NS	NS	Evaluators
Cervical pain	FA	Mock TNS	7	6	7	2	**	*	None
Cervical spondylosis	ECA	Physiotherapy	26	27	6	3	No	NS	None
Shoulder-cuff lesions	FA	Placebo	12	12	5	9	NS	NS	Assessor
Pain below the waist	EFA	Tender spots on neck	19	19	8	9	NS	NS	Patients
Musculoskeletal pain	FA	Inappropriate acupuncture	88	84	53	45	NS	NS	Triple blind

in Figure 1. Crossover studies summed over treatment order
re point selection varied according to the needs of the patient
cupuncture, a standard set of sets of points applied to all patients
cupuncture or formula acupuncture in conjunction with electrical stimulation of the needles
neous neural stimulation
$p < 0.01$. NS = no significant difference

eneity of the studies. Cochran's semi-weighted estimator for the risk difference was used.[24] The results of two additional indicators, the logarithm of the odds ratio, and the logarithm of one minus (1 −) the relative difference, were also examined.[25]

Complete information on crossover studies was unavailable in published trial reports, and these were treated as two independent samples summed over treatment order. If there is agreement between treatments, this procedure simply loses power.[26] In order to be certain that confusion was not generated by procedural differences between crossover and standard randomized trials, these were also analysed as two separate subgroups for each pain site.

For detailed evaluation, trials were classified (Table 2) into one of three subgroups according to the general anatomical site of pain (lower back, head and neck, and other sites) and into one of two subgroups according the nature of the control (placebo or treatment). Classical acupuncture was distinguished from formula acupuncture. Trials in which any agents (patients, therapists, or evaluators) were blind were identified. Large trials, 50 patients or more, were identified. Trials published in journals with the words 'Chinese' or 'acupuncture' in their title were distinguished from those in 'traditional western' medical journals.

Due to the large number of these classification criteria and the small total number of trials, subgroups based on combined classification criteria (eg. partially blind trials using classical acupuncture) were not exhaustively analysed. There are 192 ways in which

TABLE 2 *Composition of subgroups*

Subgroup (Homogeneity)	Study numbers*
Low back pain**	1, 2, 3, 4, 5
Head and neck pain**	6, 7, 8, 9, 10, 11
Other site of pain**	12, 13, 14
Crossover design**	4, 5, 6, 8
Standard design**	1, 2, 3, 7, 9, 10, 11, 12, 13, 14
Placebo control**	3, 6, 9, 10, 12, 14
Conventional treatment**	1, 2, 4, 5, 7, 8, 11, 13
Classical acupuncture**	1, 5, 6, 7, 8
Formula acupuncture*	2, 3, 4, 9, 10, 12, 13, 14
Some blindness*	2, 3, 5, 6, 9, 12, 13, 14
No blindness**	1, 4, 7, 8, 10, 11
Large trial (50 or over)**	1, 2, 5, 8, 11, 14
Small trial (less than 50)**	3, 4, 6, 7, 9, 10, 12, 13
Chinese medical journal**	1, 2, 7
Mainstream medical journal**	3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14

* Studies numbered as in Table 1.
* Studies not homogeneous at $p<0.05$
** Studies not homogeneous at $p<0.01$

two criteria could be combined. Hence residual, and potentially relevant, heterogeneity within initial groups could not be systematically avoided.

Editors may have been biased against publishing inconclusive studies. Pooling of published studies would then obtain a biased result. The influence of publication bias was evaluated by estimating the number of unpublished randomized controlled trials of acupuncture for the treatment of chronic pain with inconclusive results that would need to exist in order to negate the findings obtained[27] (the 'file drawer' problem).

In order to ensure that MA methodology was comprehensively applied, the analysis was measured against a list of qualities and a scoring system proposed for medical MAs.[27]

DATA

Five trials dealing with low back pain (trials 1 to 5 in Table 1) met the selection criteria. Coan did not report statistical analysis of results.[28] Results were statistically significant though long-term follow-up showed regression of beneficial effects. Laitinen[29] and Edelist[30] did not attain significance. Fox[31] inserted only three needles, unilaterally, for one minute at each point sequentially. These third and fourth trials offered less treatment than is conventional. In Mendelson,[32] both patients and the final evaluator of pain were blind, potentially confusing effects of treatment order were noted, and no statistically significant results were obtained.

The second group treated headache, neck pain, cervical pain, cervical spondylosis and chronic facial pain and included six trials that met the selection criteria (trials 6 to 11 in Table 1). In Hansen, placebo treatment involved superficial insertion of acupuncture needles at non-acupuncture points. A pain index yielded a Wilcoxson test with $0.05 \geq p > 0.025$, and a sign test of subjective preferences of patients yielded $p = 0.035$, one-tailed, both in favour of acupuncture.[33] Coan[34] and Loh[35] both attained statistical significance. These latter results in favour of acupuncture may have been pure placebo effects, as control groups merely continued medical treatment. Dowson[36] used a true placebo (mock TNS), and did not obtain statistical significance. Cervical pain responded significantly ($p<0.01$) to acupuncture in one small study[37] but not in another.[38]

Three trials (trials 12 to 14 in Table 1) treated varied diagnoses. A single blind trial of multiple therapies for shoulder cuff lesion is one of two trials in which treatment did worse than control. The second evaluated acupuncture for chronic pain below the waist against

'tender area needling'. Control did not explicitly exclude classical acupuncture points.[30] In Godfrey 'most appropriate' acupuncture points, were compared to 'least appropriate' points. Triple-blindness may have been achieved. Directions were given by an acupuncturist who had evaluated the patient to another who could not see the patient (whose head was hidden by a screen). No statistically significant results were obtained.[31]

RESULTS

Individual Trials

A Chi-squared test on proportions of patients improved in studies that had not published statistical tests of results,[26,34,35] yielded values of $p<0.01$. The risk difference is illustrated in Figure 1 for the 14 trials. Only two out of 14 trials obtained the result that patients treated with acupuncture did worse, on average, than the control group. The 95% CIs for four of these 14 trials did not include the 'zero risk difference' result. All four favoured acupuncture.

Meta-analysis of Cumulated Trials

Studies were not homogeneous according to the Q-statistic ($p<0.01$). The overall risk difference (indicator 'A') between acupuncture and control groups was 0.184 (SE = 0.062), in favour of acupuncture ($p<0.01$). Acupuncture was also superior overall according to the logarithm of the odds ratio (indicator 'B') and the logarithm of 'I—the relative difference' (indicator 'C').

None of the subgroups (Table 2) within which results were cumulated were homogeneous according to the 'Q' test ($p<0.05$ for all subgroups).

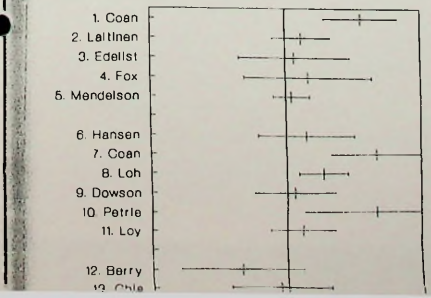
Ninety-five per cent confidence intervals for the risk difference estimator (indicator 'A') are presented as Figure 2. The results for all three indicators are presented as Table 3.

There was quite good agreement between results obtained from the three summary statistics used. In 14 of the 19 subgroups analysed, indicators 'A', 'B', and 'C', provided the same result in terms of significance (or insignificance) of the difference between treatment and control groups.

Considering pooled results by site of pain, only the subgroup of trials for head and neck pain attained significance for all three indicators. Low back pain attained significance in favour of acupuncture according to indicators 'B' and 'C' if crossover trials were included. Results for other sites of pain showed an insignificant result in favour of the control group.

Acupuncture compared to conventional treatment was more favourable to acupuncture than trials against placebo. Patients receiving classical acupuncture at sites that varied from treatment to treatment did better than patients receiving formula acupuncture at fixed sites.

Trials with at least one blind agent were less favourable to acupuncture than trials without blind agents. Trials with some blindness did not attain significance for any indicator.



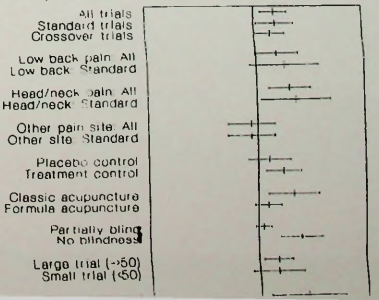


TABLE 3 *Results obtained with meta-analysis of results of all trials and subgroups of trials defined, using the risk difference, the logarithm of the odds ratio, and the logarithm of '1—the relative risk difference', with tests of significance at 95% presented (*)*

Trial group or subgroup	Indicator 'A' Weighted average of risk difference	Indicator 'B' Logarithm of the odds ratio	Indicator 'C' Logarithm of '1—the relative difference'
All trials	0.184*	0.645*	−0.219*
All standard trials	0.196*	0.633	−0.223
All crossover trials	0.147*	0.680*	−0.221
All trials for low back pain	0.191	0.753*	−0.299*
Standard trials for low back pain	0.258	1.069	−0.461
All trials for head and neck pain	0.303*	1.124*	−0.293*
Standard trials for head and neck	0.361*	1.328	−0.304
All trials for other pain sites	−0.056	−0.173	0.054
Standard trials for other sites	−0.056	−0.173	0.054
Placebo control group	0.105	0.202	−0.102
Treatment control group	0.235*	1.000*	−0.369*
Classical acupuncture	0.329*	1.411*	−0.513*
Formula acupuncture	0.092	0.260	−0.119
At least partial blindness	0.048	0.228	−0.081
No blindness in the trial	0.398*	1.662*	−0.555*
50 subjects of more (large trial)	0.183*	0.810*	−0.250*
Less than 50 subjects (small)	0.177	0.422	−0.163
Chinese or acupuncture journal	0.441*	1.947*	−0.886*
Mainstream medical journal	0.109*	0.383*	−0.135*

Large trials were more favourable to acupuncture than small trials. Results published in journals that had the word 'acupuncture' or 'Chinese' in their titles were significantly superior to those reported in 'traditional western' medical journals, but both these groups showed results favourable to acupuncture according to all three indicators.

The methodology of MA was comprehensively applied. Issues were covered in all six major areas of quality control of medical MAs. Twelve out of 23 relevant items were addressed. The analysis would be placed in the top decile of the 86 MAs reviewed by Sacks. That review obtained a mean of 7.7 items addressed with standard deviation of 2.7.

While some weaknesses of MA may not yet be fully appreciated,[45] known problems certainly include 'publication bias' and 'author self-selection bias'. The necessary number of unpublished acupuncture RCTs for chronic pain that had, on average, inconclusive results (zero risk difference) to negate the statistical significance of the pooled result in favour of acupuncture was 26 trials at $p = 0.01$, and 67 trials at $p = 0.05$.

DISCUSSION

Blindness is the only means of avoiding bias due to preconceived notions of the superiority (or inferiority) of a treatment. The 95% CI for the subgroup of 'trials with some blindness' includes the zero risk difference possibility for all indicators. If the four trials with statistically significant results are considered, only one common characteristic emerges. None had any degree of blindness. According to Godfrey,[46] full triple blindness is technically feasible. If feasible, it should be regarded as essential.

There are two potential explanations for the apparent superiority of CA over FA. Either efficacy of CA is superior, or the protocols of CA trials were inferior. Two out of six CA trials, and six out of eight FA trials, displayed some degree of blindness.

The result that trials against conventional treatment are more favourable to acupuncture than are trials against placebo may similarly be explained. Five out of eight of the former had no blindness, and only one out of six of the latter.

The superior results obtained by trials published in journals oriented towards Chinese medicine or acupuncture may indicate selective publication bias. It is possible that acupuncture treatment described in specialist journals was superior, or that study methods differed between publication subgroups. All RCTs published in journals with the words China or acupuncture in their titles were trials against conventional treatment.

It should be noted that, in MA, publication bias is made explicit. Individual studies that obtain positive results do not conventionally state that there may be large numbers of unpublished studies that obtained the opposite conclusion. The requirement that 67 inconclusive RCTs of acupuncture treatment for chronic pain exist to negate statistical significance of the pooled results is quite severe. No unpublished randomized controlled trials of acupuncture were discovered despite numerous contacts with the limited numbers of researchers in this area.

CONCLUSIONS

In pronouncing upon the efficacy, or otherwise, of a mode of treatment as contentious as acupuncture[43–45] one is advisedly cautious in distinguishing between a statistically significant and a conclusive, result. Results favourable to acupuncture were obtained significantly more often than chance alone would allow.

Publication bias may have influenced all the pooled risk difference estimates. As a result the true probabilities of type I and type II errors cannot be assessed. It is nevertheless considered 'very unlikely' that the 67 inconclusive RCTs required to negate the statistical significance of the pooled result exist.

Conclusive findings in favour of any new therapy can only be obtained from adequate triple blind randomized clinical trials. The published study plans of some trials depict a variety of deficiencies and stricter plans tended to yield less favourable results. The fact that results for acupuncture vary greatly according to the degree of blindness underlines this point.

Analysis of cumulated results of subgroups provides useful guidelines for future research. It is also possible that the choice between formula and classical acupuncture may influence results. Preliminary indications are that future trials should consider these as distinct types of treatment.

If acupuncture has a pain relieving effect, the mechanisms by which this effect could come about are, of course, unknown. However, while much more is known about the mode of function of effective analgesic drugs such as aspirin, the precise mechanism of this commonly used drug has not yet been completely understood. Acupuncture has probably been used

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A NEW BREAKTHROUGH IN THE TREATMENT OF CANCER WITH RADIO FREQUENCY ACUPUNCTURE USING HYMNS FROM HOLY QURAN.

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Specific Diet for Diabetic patients.

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Paper read on 11.11.1989.

(WITH THE BEST COMPLIMENTS FROM URDU DAILY SALAR BANGALORE)

DEDICATION
TO
CANCER SOCIETY OF INDIA
&

1) Dr. M.A. Kline. M.D; American Medical Society, Vienna.
2) Dr. Schade. W.H.O. Geneva.
3) Sir. Prof. Dr. Anton Jayasurya. International College of Acupuncture, Colombo. Sri Lanka.
4) Ibrahim Khaleelulla Khan, Editor Salar Urdu Daily Bangalore.
5) His Excellency Hasan Omar Badogoon. Jeddah,.S.A.
6) Dr. T.M. Manikam. M.S; DLO; (Late) Bangalore.
7) Prof. Dr. R.M.Varma. F.R.C.S; Neuro Surgeon. Bangalore.
8) Dr. V.Parameshwara. F.R.C.P; Cardiologist, Bangalore.
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4) (Dr) Qurratul Ain. Bangalore.

A NEW BREAKTHROUGH IN THE TREATMENT OF CANCER WITH RADIO FREQUENCY ACUPUNCTURE USING HYMNS FROM HOLY QURAN

BY
—A M A N

1. INTRODUCTION:-

So far no scientific cure has been found towards the treatment of cancer in any medical system. The author of this paper accidentally found that his newly invented method of treating diseases with Radio-Frequency Acupuncture (RFA) has some curative effect in controlling the pain and resulting in the regression of the tumor in a very serious patient suffering from throat cancer, when certain hymns were passed from Holy Quran-(verses 1 to 19- SURA YASIN Chapter 36) in the form of radio waves with the help of

transducers over the radio wave emitting acupuncture points of the patients noticing the immediate relief in his pain after this treatment. The author continued the same treatment over the same acupoints daily for ten minutes for a week. With this treatment the patient swallowed food in an easy manner. Also the tumor in the neck began to shrink gradually in three months time he showed significant improvement and then lived for more than three years with out any complication.

2. AUTHOR'S BACKGROUND

Encouraged by this method of treatment the author has been treating free of cost the pathologically confirmed patients with the grants of American Medical Society of Vienna and Indo-American Hospital Trust. The author is the recipient of ***"THE EURO—OSCAR" AWARD*** in Rome in 1983 for his services to humanity and his internationally famous book ***"MEDICINAL SECRETS OF YOUR FOOD"***. He was awarded Post-doctoral degree of Doctor of Science in Stockholm (Sweden) in 1984, for his thesis **"Treatment of Cancer with RFA using the hymns from Holy Quran.** At present he is given a grant to do research in cancer with Prof. G. Monaco in Rome University.

3. METHODOLOGY OF RADIO-FREQUENCY ACUPUNCTURE (RFA) TREATMENT:-

In this new method of treating diseases the patients own unrectified biooscillations in the form of radio frequencies are fed into a electronic rectifier. After the rectification, the same rectified radio waves are passed back to the patient through his defective acupuncture points. The technical explanation of these instruments is beyond the scope of this paper. However, suffice to say that a healthy person does not emit high frequency waves at the acupoints due to their low electrical impedence. If any organ is defective or diseased the acupoints concerned with their specified organs are affected. The microcirculation in these neurotransmitters gets reduced resulting in the high resistance in the acupoints consequent in the dimunition of the microcirculation. Owing to this increased resistance, bio-electro-magnetic waves are generated, subsequently, the chronobiological biorythms are disturbed subsequently.

4. BIORHYTHM'S CONCEPT:

Biorythms are the basic characteristics of all living organisms. These rhythms alterations occur in organisms with a super-sonic speed. The synchronised nature of different rhythms in the organism creates a harmonious system establishing a perfect homeostasis. The pioneering author of this paper discovered that the biorhythms in man exist in the form of high frequency electro magnetic waves. These strictly rapid momentary signals last only for a thousanth of a fraction of a second and its voltage is several million fraction of a volt. With the help of his newly invented instruments the author studied and recorded the biorhythms in the form of bioelectromagnetic waves over the defective acupoints.

5. BIOENERGY CONCEPT:

The bioenergy or "Chi" makes a complete circuit in all the meridions in 24 hours attaining a peak level for two hours in each meridian. During this process the radio wave patterns are altered when the energy changes from one meridian to another meridian. It is observed that energy remains at peak level between 8 to 9 AM., and 2 to 4 PM. During these peak hours the energy is found highly active over St-36, and small intestine 3 acupoints. The digestion and absorption of the food will be very quick during this period.

Taking vitamins, antiobiotics between this peak level of the energy. produces an optimum therapeutic effect. But antihitamine drugs, steroids and anabolic drugs have greater absorption between 2 to 4 PM. However, the energy antihistamine anabolic distributions remains variable between 9 A M to 3 P M. Further the author has observed that the biorhythm curve goes down to the lowest form from 1 to 3 A M. At this period the energy is circulating in gall-bladder and liver meridians. The working capacity of the person is found to be the lowest during the period. This is coroborated by the fact that the Russian Scientists have noticed more automobile accidents occuring during the period at night. When drivers were warned to be extravigilant during this hour of the night the accident rate was nearly halved. After this period Brahma Muhartam commences.

6. THE HOLY QURAN:

The Holy Quran is the scripture of muslims. The contents are in the form of Arabic Poetry. When the versus recited accurately with correct intonation in a melodious voice it produces tranquility of mind in both the recitor and the listeners. Quran speaks of its usefulness in curing the sickness of the mind and body. The author used selected versus from various chapters in treating different types of diseases and particularly the first 21 verses from 36 chapter Yasin and discovered the curative effect in the treatment of different types of cancer with his newly found method. After 8 years of research the author is convincingly found a definite healing effect by the use of Quranic hymns in cancer and other diseases (diabetes, hypertension, brain tumors, functional cardiac disorders, migraine renal failure, chronic skin diseases etc). The author also employed the hymns from Holy Bhagwath Geetha and its 8,9 and 16 chapters are found to have ramarkable curative effects in mental retardation, musculo-skeletol disorders, epilepsy. It is infered by this research that the passage of these hymns in the form of radio waves through the defective acupoints results in the cure of diseases as a consequence of biophysical, and biochemical changes in the body at the cell level resetting the cellular elements to function harmoniously. It is infered that this treatment resets the physiology of erring *ONCOGENES* and prevent uncontrolled protein synthesis in cancer.

7. MECHANISM OF CURE BY RFA EXPLAINED:-

It is interesting to find that all cancer patients treated with RFA invariably emit radio-frequencies at the FIRE and WATER element points in all the meridians. However, the frequencies vary from person to person according to their general condition. When the patients are treated through these points using their own rectified biooscilliations coupled with the hymns of Quran a definite beneficial change in them namely immense relief of pain much quicker than the use of most potent analgesics. This indicates that the body endorphins are quickly released in the brain by Quranic radio frequency acupuncture treatment. The cheerful attitude, improved appetite and the intense desire for living and getting cured may be a state of euphoria caused by the biosteroids in the body. The fall in the blood pressure, sugar, cholesterol level are also the indication of developing autonervo immunity in the body owing to this treatment. It is found cancer patients live longer cheerfully, and fight the disease heroically after this treatment, while, the other patients treated with conventionally with surgery, radiation and chemotherapy were denied of these benefits and were greatly disappointed.

8. PREWARNING OF DISEASES BY RFA:METHOD:-

Every illness needs time to develop. Our body and the reactions of the various life processes are constantly exposed to all kinds of inflictions and disturbances. The body can cope with many insults by itself before the cells or cell compounds are damaged. When this happens we usually react with a slight uneasiness to which we attribute no major significance. Only when large number of cells is destroyed does our body react with clinically manifest symptoms and we feel sick. In any case the least infliction cause energetic alterations.

These energetic alterations can be detected by the new instruments in the very beginning much earlier before most of the clinical data can be obtained. RFA can come up with results. Physician can innitiate counter measure to avoid severe illness or reduce to it by a milder form. "Pre warn is Prearm" (Susrutha).

The superiority of this new method-that-is early diagnosis and specific theraphy that can be used along with any method of treatment without side effects-should be taken advantage of and put forth to best use. However, RFA must not be regarded as a potential competor to established medicine but rather as a new and valuable means of widening the scope of medicine and making up for some of its short-comings by preventive and holistic approaches.

9. LIMITATIONS OF RFA:

RFA has its own limitations because detection of effective acupoints and treatment of the diseases without the help of sophisticated new electronic instruments is not possible except at Indo-American Hospital, Mysore, and International Institute of Medicine at Rome. It requires intensive training to operate and treat the patients with these instruments. However, the author is giving training to the physicians under Internationals college of Acupuncture of Switzerland at Mysore, Bangalore, Raipur, Colombo, Rome and Vienna and making earnest efforts to develop a simple easily available instrument for the use of the trained physicians.

Physicians who wish to examine our records of the treatment and learn the technique of RFA are welcome to Indo-American Hospital Trust Shivaji Road, N.R. Mohalla Mysore-7 or our extension at 96/56, 40th Cross, 6th Main 5th Block, Jayanagar Bangalore-41 by prior appointment on Bangalore telephone No. 643427.

CLINICAL RESULTS OF THE AUTHOR'S TREATMENT FOR CANCER SUMARISES:-

A total number of 75 patients, both males and females between 2 to 80 years of age sufferring from various types of cancer were treated by the author with RFA incorporating Quranic hymns during a period of 9 years. Out of these patients 64 persons were in advanced stage of malignancy and had already been treated by conventional method by oncologisis when these patients treated with RFA and special cancer diet rich in Vt A, C, E it was found that most of the patients had significant symptomatic clinical improvement in general as already indicated in earlier paragraph. Contrary to the prediction of the oncologists RFA treated patients did live longer with greater comfort and less pain.

The other eleven confirmed cases of cancer did not want to subject themselves to surgery, radiation and chemotherapy (mostly breast and uterus cancer). These patients were treated by the author with his new method incorporating Quranic hymns at the defective fire and water element points. After a very significant clinical improvement they were found to be free from cancer as tested by oncologist on negative biopsy results. It is infered by this research that the Fire and Water element constitution in the body plays a major role in the causation of malignancy by disturbing the cellular physiology. However, this requires a further research "One of the primary tasks of some one entrusted is to heal is to encourage the innate capacity for healing of the individual in distress. To enable him to accomplish this task effectively, the healer to be aware of his own multi-dimentional levels of existence and have some enterprise and ability in achieving a state of balance and harmony within himself." without self confidence in his own work. results of this research remain questionable." **(Prof. Dr. R.M. Varma of Bangalore).**

CONCLUSION

The author prays to the Almighty and hopes his humble efforts to wipe the tears of the sufferring humanity will open a new chapter in Holistic medicine.

JAI HIND.

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47A-71

Chronic pain: Use of TENS in the elderly

GUDNI THORSTEINSSON, MD

Transcutaneous electrical nerve stimulation (TENS) can be an important adjunct to the management of pain in elderly patients. Chronic neuropathy and postfracture recovery are the leading indications for using the portable stimulative device, although it has also been applied successfully in relieving low-back pain, postherpetic neuralgia, myofascial pain, phantom-limb pain, and advanced, painful malignancies. However, TENS is rarely used alone in pain relief, but instead should be part of a larger management program that may include other modalities.

Thorsteinsson G. Chronic pain: Use of TENS in the elderly. GERIATRICS *1987; 42(Dec): 75-82.*

Transcutaneous electrical nerve stimulation (TENS) has been used successfully to control chronic pain in various conditions, and in the elderly, certain specific indications have emerged.

The leading indications for using TENS in older persons include painful neuropathies (ie, in diabetics) and postfracture rehabilitation. TENS can also be particularly effective when used for mobilization of a shoulder, either after a fracture or when periarthritis or capsulitis causes joint pain and tightness. Most recently, TENS has been used to alleviate or diminish the pain of rib fracture in older patients, a technique that facilitates breathing and lessens the complications of atelectasis or pneumonitis.

Its use requires, of course, knowledge of optimal application, both by physicians and patients. For example, when mobilizing a shoulder, TENS is best applied over several muscles—anteriorly, posteriorly, and laterally around the shoulder—while range-of-motion exercises are carried out. The treatment is further enhanced by prolonged, gentle stretching exercises. With respect to rib fracture, the electrodes are placed posteriorly at the origin of the intercostal nerves, and the patient applies electrostimulation as needed.

For a brief background on the physiology of TENS treatment, see *The physiologic basis for TENS* on page 76.

Research has been conducted by the author and others to clearly define successful uses of TENS in the elderly.

Dr. Thorsteinsson is a consultant in the department of physical medicine and rehabilitation, Mayo Clinic and Mayo Foundation, and an assistant professor of physical medicine and rehabilitation, Mayo Medical School, Rochester, MN.

Double-blind Mayo Clinic trial

To determine the effect of the stimulator and the indications for its use, a double-blind trial was carried out by the outpatient department of Physical Medicine and Rehabilitation at the Mayo Clinic.[9] We also analyzed the findings of similar studies by other investigators.

Of the 107 subjects who entered our study, 93 patients (53 women and 40 men) with chronic pain completed the trial. Their mean age was 49 years (range, 22 to 88). Although the patients had various pain-related diagnoses, the most frequent were low-back pain (33 patients), and neuropathy (24 patients). Eighty-three of the 93 patients completed the Minnesota Multiphasic Personality Inventory, and, on analysis, 30 had normal personality profiles. 30 had hysterical profiles, and 23 had profiles indicating depression.

The study format involved six sessions for each patient: three periods with the live TENS generator and three with a placebo device—a TENS look-alike that emitted no electrical impulse. Three sites were stimulated with each instrument: the site of pain, the site of related nerves innervating the painful area, and the site of unrelated nerves.

Sessions usually required 3 days, in a randomized schedule known only to the supervisor. Each treatment session lasted 20 minutes, and the six sessions were usually completed in 3 days. Patients used one device for three consecutive trials, then switched to the other instrument to complete the series. Subjects then indicated a preference for the stimulator or the placebo device.

continued

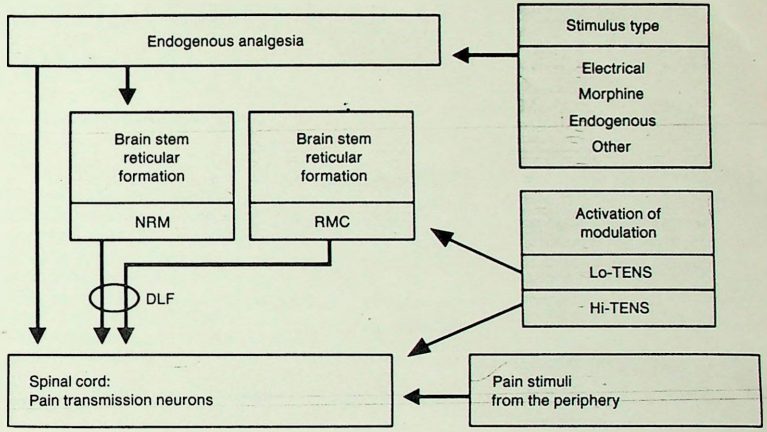

Figure. Electrical stimulation for analgesia. Mechanisms of modulation are postulated to operate at the spinal cord level or supraspinal level in the central nervous system. Lo-TENS is a low-frequency, high-intensity TENS; Hi-TENS is high-frequency, low-intensity TENS; NRM is nucleus raphe magnus; RMC is nucleus reticularis magnocellularis; and DLF is dorsolateral funiculus.

From Thorsteinsson G. Electrical stimulation for analgesia. In: Stillwell GK, ed. Therapeutic electricity and ultraviolet radiation, 3rd ed. Baltimore: Williams and Wilkins 1983: 109-23. By permission of the Williams and Wilkins Co.

The physiologic basis for TENS

The reintroduction of TENS into clinical medicine resulted from the failure of older sensory theories to explain the physiology of pain. One old but widely held hypothesis, proposed in 1840, was the specificity theory. In 1965, Melzack and Wall[1] conceived the "gate-control" theory, and, in 1975, Kerr[2] proposed the "central inhibitory balance" theory based on his anatomic-histologic studies. Kerr's work lent significant support to the gate-control theory by describing the factors involved in balancing (modulating) sensory input from the periphery at the spinal-cord level.

This neuronal modulation is the balance between the large and small fibers and reflects how their activities influence the gelatinosa neurons and marginal cells.

Modulation is the physiologic basis for TENS' pain control. To decrease or abolish the pain sensation, the pain stimulus is modified at some point along the relay network of the central nervous system. Such noxious, painful sensory input can be modulated at various levels within the central nervous system, ie, the spinal cord, brain stem, and thalamus.[3,4] The modulation can be induced endogenously through processes like the endorphin system,[5,6] or exogenously as with electrical stimulation induced with TENS.[7] The modulation potential is summarized (see figure).[8]

Results. Responses were reported in four categories: complete relief, partial relief, no relief, and aggravation. Far more preferred the TENS generator over the placebo, both during and after the treatment sessions (table 1). Patients also reported successful responses (complete or partial relief) more frequently during and after treatment over the center of pain than over related and unrelated nerves.

Even so, patients found no difference between the duration of relief achieved with either the stimulator or the placebo device. This same duration-of-relief phenomenon has been observed in other double-blind trials that evaluated pain relievers, including vari-

TABLE 1

Patient preference by site both during and after TENS treatment*

Treatment site	During treatment			After treatment		
	M	P	O	M	P	O
Center of pain	31†	10	52	27†	8	58
Related nerves	26	11	56	28	12	53
Unrelated nerves	24†	9	60	22	10	61

*M = Prefer TENS stimulator
P = Placebo
O = No preference
† = Significant preference over use of respective placebo device ($p < 0.01$)

Source: Thorsteinsson, Reference 9

ous drugs and other therapies.[10]

Analysis. Though analysis of our data showed that TENS was preferred when applied over the center of pain, if all painful conditions were considered (table 1),[9] stimulation over related nerves was favored by patients with neuropathy (table 2).[9]

The study found no absolute contraindications to TENS. Allergic reactions to the conduction gel or electrodes occurred occasionally, but recent improvements in design and composition of the electrodes have made these complications rare.

Depression could be a relative contraindication, because the study showed that depressed patients experienced the least pain relief with TENS use.

Patients who had depressed personality profiles also stopped using TENS earlier and more often than did patients with normal or hysterical profiles.[11]

Of the 93 subjects who finished the trial, 43 started to use the stimulator at home, 27 were still using it after 3 months, and 21 were applying the stimulator at our 6-month follow-up. The site of pain was the main target of stimulation during the first 3 months, but at 6 months patients had shifted toward applying the stimulator over the related nerves.

This is not, however, a pattern one sees routinely with TENS now, since patients are usually directed at the time of their evaluation as to which site is the most effective.

Stimulation time per treatment session averaged 42.5 minutes at 3 months and 36 minutes at 6 months. Most subjects used the electrostimulator twice each day. However, reports of complete pain relief declined markedly for patients who continued to use TENS for 6 months. Eleven patients reported complete relief early in the trial, but at 6 months, only one told of receiving complete pain relief.

Findings of other investigators

Sjölund and Eriksson[12,13] showed that high-intensity, low-frequency stimulation, an acupuncture-type method, activated endogenous modulation more than did low-intensity, high-frequency stimulation, the traditional TENS approach. Thus, they postulated that high-intensity stimulation could be indicated for patients with central pain.

Yet, Richardson et al[14] were disappointed by the lack of pain relief in patients with the central-pain syndrome. I also have noted a lack of pain relief when using traditional high-frequency TENS in patients who had central pain from spinal-cord injury.

In a retrospective analysis of their 300-patient study, Long et al[15] found that TENS was far more effective in certain disease categories than in others. Positive and predictable responses were achieved with

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Contraindications: Hypersensitivity to this product; patients in whom acute asthmatic attacks, urticaria, or rhinitis is precipitated by aspirin or other nonsteroidal anti-inflammatory agents.

Warnings: Peptic ulceration and gastrointestinal bleeding have been reported. Fatalities have occurred. Gastrointestinal bleeding is associated with higher morbidity and mortality in labile patients, such as the elderly, patients with hemorrhagic disorders, etc. In patients with active gastrointestinal bleeding or an active peptic ulcer, an appropriate ulcer regimen should be instituted, benefits of therapy must be weighed against possible hazards, and the patient's progress carefully monitored; in patients with a history of either upper or lower gastrointestinal tract disease, CLINORIL® (Sulindac, MSD) should be given under close supervision and only after consulting the Adverse Reactions section.

Rarely, fever and other evidence of hypersensitivity (see Adverse Reactions), including abnormalities in one or more liver function tests and severe skin reactions, have occurred; fatalities have occurred in these patients. Hepatitis, jaundice, or both, with or without fever, may occur usually within the first one to three months of therapy. Determinations of liver function should be considered whenever unexplained fever, rash or other dermatologic reactions, or constitutional symptoms develop; if unexplained fever or other evidence of hypersensitivity occurs, discontinue CLINORIL. Elevated temperature and abnormalities in liver function caused by CLINORIL characteristically have reverted to normal after discontinuation of therapy. CLINORIL should not be reinstituted in such patients.

In addition to hypersensitivity reactions involving the liver, in some patients the findings are consistent with those of cholestatic hepatitis. As with other nonsteroidal anti-inflammatory drugs, borderline elevations of one or more liver tests without any other signs and symptoms may occur in up to 15% of patients. These abnormalities may progress, may remain essentially unchanged, or may be transient with continued therapy. The SGPT (ALT) test is probably the most sensitive indicator of liver dysfunction. Meaningful (3 times the upper limit of normal) elevations of SGPT or SGOT (AST) occurred in controlled clinical trials in less than 1% of patients. A patient with symptoms and /or signs suggesting liver dysfunction, or in whom an abnormal liver test has occurred, should be evaluated for evidence of the development of more severe hepatic reaction while on therapy with CLINORIL. Although such reactions as described above are rare, if abnormal liver tests persist or worsen, if clinical signs and symptoms consistent with liver disease develop, or if systemic manifestations occur (e.g., eosinophilia, rash, etc.), CLINORIL should be discontinued. In clincal trials, the use of 600 mg/day has been associated with increased incidence of mild liver test abnormalities (maximum recommended dosage is 400 mg per day).

Precautions: *General*—Although the effect on platelet function and bleeding time is less than with aspirin, CLINORIL is an inhibitor of platelet function; therefore, patients who may be adversely affected should be carefully observed when CLINORIL is administered. Pancreatitis has been reported (see Adverse Reactions); should pancreatitis be suspected, the drug should be discontinued and not restarted, supportive medical therapy instituted, and the patient monitored closely with appropriate laboratory studies (e.g., serum and urine amylase, amylase/creatinine clearance ratio, electrolytes, serum calcium, glucose, lipase, etc.); a search for other causes of pancreatitis as well as those conditions which mimic pancreatitis should be conducted. Because of reports of adverse eye findings with nonsteroidal anti-inflammatory agents, it is recommended that patients who develop eye complaints during treatment have ophthalmologic studies. In patients with poor liver function, delayed, elevated and prolonged circulating levels of the sulfide and sulfone metabolites may occur. Such patients should be monitored closely; a reduction of daily dosage may be required.

Edema has been observed in some patients taking CLINORIL. Therefore, as with other nonsteroidal anti-inflammatory drugs, CLINORIL should be used with caution in patients with compromised cardiac function, hypertension, or other conditions predisposing to fluid retention. CLINORIL may allow a reduction in dosage or the elimination of chronic corticosteroid therapy in some patients with rheumatoid arthritis. However, it is generally necessary to reduce corticosteroids gradually over several months in order to avoid an exacerbation of disease or signs and symptoms of adrenal insufficiency. Abrupt withdrawal of chronic corticosteroid treatment is generally not recommended even when patients have had a serious complication of chronic corticosteroid therapy.

Renal Effects—As with other nonsteroidal anti-inflammatory drugs, long-term administration of sulindac to animals has resulted in renal papillary necrosis and other abnormal renal pathology. In humans, there have been reports of acute interstitial nephritis with hematuria, proteinuria, and occasionally nephrotic syndrome. A second form of renal toxicity has been seen in patients with prerenal and renal conditions leading to a reduction in renal blood flow or blood volume, where renal prostaglandins have a supportive role in the maintenance of renal perfusion. In these patients, the administration of an NSAID may cause a dose-dependent reduction in prostaglandin formation and may precipitate overt renal decompensation. CLINORIL may affect renal function less than other NSAIDs in patients with chronic glomerular renal disease (see CLINICAL PHARMACOLOGY section of Prescribing Information). Until these observations are better understood and clarified, however, and because renal adverse experiences have been reported with CLINORIL (see Adverse Reactions), caution should be exercised when administering the drug to patients with conditions associated with increased risk of the effects of nonsteroidal anti-inflammatory drugs on renal function, such as those with renal or hepatic dysfunction, complications associated with advanced age, extracellular volume depletion from any cause, congestive heart failure, sepsis, or concomitant use of any nephrotoxic drug. Discontinuation of NSAID therapy is typically followed by recovery to the pretreatment state. Since sulindac is eliminated primarily by the kidneys, patients with significantly impaired renal function should be closely monitored; a lower daily dosage should be anticipated to avoid excessive drug accumulation.

Use in Pregnancy—Not recommended for use in pregnant women, since safety for use has not been established and because of the known effect of drugs of this class on the human fetal cardiovascular system (closure of the ductus arteriosus) during the third trimester of pregnancy.

Nursing Mothers—Nursing should not be undertaken while a patient is on CLINORIL. It is not known whether sulindac is secreted in human milk; however, it is secreted in the milk of lactating rats.

Use in Children—Safety and effectiveness in children have not been established.

Drug Interactions—DMSO should not be used with sulindac; concomitant administration has been reported to reduce plasma levels of active sulfide metabolite and potentially reduce efficacy and to cause peripheral neuropathy. Although sulindac and its sulfide metabolite are highly bound to protein, studies with daily doses of 400 mg have shown no clinically significant interaction with oral anticoagulants or oral hypoglycemic agents; however, patients should be monitored carefully until it is certain that no change in their anticoagulant or hypoglycemic dosage is required. Special attention should be paid to patients taking higher doses than those recommended and to patients with renal impairment or other metabolic defects that might increase sulindac blood levels. Concomitant administration of aspirin significantly depressed the plasma levels of the active sulfide metabolite. Although addition of aspirin did not alter the types of clinical or laboratory adverse experiences, the combination showed an increase in the incidence of gastrointestinal adverse experiences; since addition of aspirin did not have a favorable therapeutic effect, the combination is not recommended. Concomitant administration of diflunisal in normal volunteers resulted in lowering of plasma levels of active sulindac sulfide metabolite by approximately one-third. Probenecid given concomitantly had only a slight effect on plasma sulfide levels, while plasma levels of sulindac and sulfone were increased; sulindac produced a modest reduction in the uricosunc action of probenecid, which probably is not significant under most circumstances. Neither propoxyphene hydrochloride nor acetaminophen had any effect on the plasma levels of sulindac or its sulfide metabolite.

Adverse Reactions: The following adverse reactions were reported in clinical trials or have been reported since the drug was marketed. The probability exists of a causal relationship between CLINORIL® (Sulindac, MSD) and these adverse reactions. The adverse reactions which have been observed in clinical trials encompass observations in 1,865 patients, including 232 observed for at least 48 weeks.

Incidence greater than 1%: Gastrointestinal—Gastrointestinal pain (10%), dyspepsia,* nausea* with or without vomiting, diarrhea,* constipation,* flatulence, anorexia, gastrointestinal cramps. *Dermatologic*—Rash,* pruritus. *Central Nervous System*—Dizziness,* headache,* nervousness. *Special Senses*—Tinnitus. *Miscellaneous*—Edema (see Precautions).

Incidence less than 1%: Gastrointestinal—Gastritis, gastroenteritis or colitis; peptic ulcer; gastrointestinal bleeding; GI perforation; liver function abnormalities; jaundice, sometimes with fever; cholestasis; hepatitis; pancreatitis (see Precautions), ageusia; glossitis. *Dermatologic*—Stomatitis, sore or dry mucous membranes, alopecia, photosensitivity, erythema multiforme, toxic epidermal necrolysis, Stevens-Johnson syndrome, exfoliative dermatitis. *Cardiovascular*—Congestive heart failure, especially in patients with marginal cardiac function; palpitation; hypertension. *Hematologic*—Thrombocytopenia; ecchymosis; purpura; leukopenia, agranulocytosis, neutropenia; bone marrow depression, including aplastic anemia; hemolytic anemia; increased prothrombin time in patients on oral anticoagulants (see Precautions). *Genitourinary*—Urine discoloration; vaginal bleeding; hematuria; proteinuria; crystalluria, renal impairment, including renal failure; interstitial nephritis; nephrotic syndrome. *Psychiatric*—Depression; psychic disturbances, including acute psychosis. *Nervous System*—Vertigo, insomnia, somnolence, paresthesia, convulsions, syncope, aseptic meningitis. *Special Senses*—Blurred vision, visual disturbances, decreased hearing, metallic or bitter taste. *Respiratory*—Epistaxis. *Hypersensitivity Reactions*—Anaphylaxis, angioneurotic edema, bronchial spasm, dysonea. A potentially fatal apparent hypersensitivity syndrome has been reported; this syndrome may include constitutional symptoms (fever, chills), cutaneous findings (rash or other dermatologic reactions—see above), involvement of major organs (changes in liver function, jaundice, pancreatitis, pneumonitis, leukopenia, eosinophilia, anemia, renal impairment, including renal failure), and other less specific findings (adenitis, arthralgia, myalgia, fatigue, chest pain).

Causal relationship unknown: Other reactions have been reported in clinical trials or since the drug was marketed but occurred under circumstances where a causal relationship could not be established. However, in these rarely reported events, that possibility cannot be excluded. Therefore, these observations are listed to serve as alerting information to physicians. *Cardiovascular*—Arrhythmia. *Metabolic*—Hyperglycemia. *Nervous System*—Neuritis. *Special Senses*—Disturbances of the retina and its vasculature. *Miscellaneous*—Gynecomastia.

Dosage and Administration: CLINORIL should be administered orally twice a day with food. The maximum dosage is 400 mg per day; dosages above 400 mg per day are not recommended. In osteoarthritis, rheumatoid arthritis, and ankylosing spondylitis, the recommended starting dosage is 150 mg twice a day; the dosage may be lowered or raised depending on the response. A prompt response (within one week) can be expected in about one half of patients with osteoarthritis, ankylosing spondylitis, and rheumatoid arthritis; others may require longer to respond. In acute painful shoulder (acute subacromial bursitis/supraspinatus tendinitis) and acute gouty arthritis, the recommended dosage is 200 mg twice a day; after a satisfactory response has been achieved, the dosage may be reduced according to the response. In acute painful shoulder, therapy for 7-14 days is usually adequate. In acute gouty arthritis, therapy for 7 days is usually adequate.

Management of Overdosage: Overdosage has been reported, and rarely deaths have occurred. In the event of overdosage, the stomach should be emptied by inducing vomiting or by gastric lavage, and the patient carefully observed and given symptomatic and supportive treatment. Animal studies show that absorption is decreased by the prompt administration of activated charcoal and excretion is enhanced by alkalinization of the urine.

How Supplied: Tablets CLINORIL containing 150 mg or 200 mg sulindac, with cellulose, magnesium stearate, and starch as inactive ingredients, in unit-of-use bottles of 60 and 100, unit-dose packages of 100, and bottles of 100.

*Incidence between 3% and 9%. (Those reactions occurring in less than 3% of patients are unmarked.)

For more detailed information, consult your MSD Representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486

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TABLE 2

Patient preferences in major diagnostic groups by site treated by TENS*

Diagnostic group	Treatment site	During treatment			After treatment		
		M	P	O	M	P	O
Neuropathy	Center of pain	9	2	13	9	1	14
	Related nerves	10†	1	13	11†	1	12
	Unrelated nerves	10	3	11	7‡	2	15
Low-back pain	Center of pain	13	4	16	11	2	20
	Related nerves	7	5	21	8	5	20
	Unrelated nerves	6	4	23	6	5	22

*M = Prefer TENS stimulator
P = Placebo
O = No preference
† Significant preference over use of respective placebo devices ($p < 0.01$)
‡ Fisher exact test also used

Source: Thorsteinsson, Reference 9

TENS in certain peripheral nerve injuries, myofascial pain, amputation stump pain, postherpetic neuralgia, and phantom-limb pain, findings with which other investigators have agreed.[16,17]

On the other hand, TENS appeared to be relatively ineffective in psychogenic pain, pain from peripheral neuropathies marked by a loss of large afferent fibers, and—again—pain secondary to injury of the central nervous system.

Ostrowski,[18] after reviewing the usefulness of TENS in patients with advanced malignancies, concluded that electrostimulation was indicated to relieve such pain.

My colleagues and I found[10] that TENS provided other excellent relief for patients with the low-back pain syndrome. We found, however, that relief was not significant in the low-back pain group, probably because we had few patients in this diagnostic classification, and strict criteria for determining significance.

My subsequent clinical experience has shown that TENS is definitely indicated in patients with myofascial pain, as well as those with arthritis pain.

Sjölund[19] reported good results from applying TENS in various disorders, including peripheral nerve pain, central pain, bone metastases, and rheumatoid arthritis. Yet his results were poor in patients with psychogenic pain, 50% of whom continued to use the stimulator for an extended time; three-fourths of these patients claimed their pain relief reached or exceeded 50%. This improvement was evidenced by increased social activities and decreased use of medication.

Finally, Hymes et al[20] demonstrated that TENS was useful in controlling acute post-surgical pain.

In summary, TENS trial is indicated in the elderly for the following conditions:

- chronic painful peripheral neuropathies;
- some postoperative and fracture pain (rib, humerus);
- periarthritis of the shoulder;
- cancer pain; and
- back and neck pain (myofascial, degenerative joint disease).

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Chronic pain

continued

chronic pain. Rather, it should be integrated with an overall management plan, which may include conditioning exercises, relaxation therapy, and other modalities of pain relief, such as medication, bracing, heat or ice, and nerve blocks.

Relaxation techniques and biofeedback are important to consider when designing a pain-management program for muscle tension and myalgia. This could be accomplished by help of a physical therapist who is experienced in biofeedback muscle relaxation.

Because muscle contractures and weakness from disuse also are common with chronic pain, particularly among the elderly, specific restorative exercises are indicated for patients with these conditions. Such exercises would consist of a gradual fitness exercise program (ie, walking, stationary bicycling, etc).

For more than a decade, TENS has been used as an adjunct to manage pain. Complete evaluation of the patient is needed to establish the indication. Proper application and use is important. Usually, TENS is but one of several factors used in individual patients for the successful management of pain.

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prescribing. See complete prescribing information in SK&F LAB CO. literature or PDR. **The following is a brief summary.**

Contraindications: *There are no known contraindications to the use of 'Tagamet'.*

Precautions: *While a weak antiandrogenic effect has been demonstrated in animals, 'Tagamet' has been shown to have no effect on spermatogenesis, sperm count, motility, morphology or in vitro fertilizing capacity in humans.*

In a 24-month toxicity study in rats at dose levels approximately 9 to 56 times the recommended human dose, benign Leydig cell tumors were seen. These were common in both the treated and control groups, and the incidence became significantly higher only in the aged rats receiving 'Tagamet'.

Rare instances of cardiac arrhythmias and hypotension have been reported following the rapid administration of 'Tagamet' HCl (brand of cimetidine hydrochloride) injection by intravenous bolus.

Symptomatic response to 'Tagamet' therapy does not preclude the presence of a gastric malignancy. There have been rare reports of transient healing of gastric ulcers despite subsequently documented malignancy.

Reversible confusional states have been reported on occasion, predominantly in severely ill patients.

'Tagamet' has been reported to reduce the hepatic metabolism of warfarin-type anticoagulants, phenytoin, propranolol, chlordiazepoxide, diazepam, lidocaine, theophylline and metronidazole. Clinically significant effects have been reported with the warfarin anticoagulants; therefore, close monitoring of prothrombin time is recommended, and adjustment of the anticoagulant dose may be necessary when 'Tagamet' is administered concomitantly. Interaction with phenytoin, lidocaine and theophylline has also been reported to produce adverse clinical effects.

However, a crossover study in healthy subjects receiving either 'Tagamet' 300 mg, q.i.d. or 800 mg, h.s. concomitantly with a 300 mg, b.i.d. dosage of theophylline (Theo-Dur®, Key Pharmaceuticals, Inc.), demonstrated less alteration in steady-state theophylline peak serum levels with the 800 mg, h.s. regimen, particularly in subjects aged 54 years and older. Data beyond ten days are not available. [Note: All patients receiving theophylline should be monitored appropriately, regardless of concomitant drug therapy.]

Lack of experience to date precludes recommending 'Tagamet' for use in pregnant patients, women of childbearing potential, nursing mothers or children under 16 unless anticipated benefits outweigh potential risks; generally, nursing should not be undertaken in patients taking the drug since cimetidine is secreted in human milk.

Adverse Reactions: *Diarrhea, dizziness, somnolence, headache, rash. Reversible arthralgia, myalgia and exacerbation of joint symptoms in patients with preexisting arthritis have been reported. Reversible confusional states (e.g., mental confusion, agitation, psychosis, depression, anxiety, hallucinations, disorientation), predominantly in severely ill patients, have been reported. Gynecomastia and reversible impotence in patients with pathological hypersecretory disorders receiving 'Tagamet', particularly in high doses, for at least 12 months, have been reported. Reversible alopecia has been reported very rarely. Decreased white blood cell counts in 'Tagamet'-treated patients [approximately 1 per 100,000 patients], including agranulocytosis [approximately 3 per million patients], have been reported, including a few reports of recurrence on rechallenge. Most of these reports were in patients who had serious concomitant illnesses and received drugs and/or treatment known to produce neutropenia. Thrombocytopenia [approximately 3 per million patients] and a few cases of aplastic anemia have also been reported. Increased serum transaminase and creatinine, as well as rare cases of fever, interstitial nephritis, urinary retention, pancreatitis and allergic reactions, including hypersensitivity vasculitis, have been reported. Reversible adverse hepatic effects, cholestatic or mixed cholestatic-hepatocellular in nature, have been reported rarely. Because of the predominance of cholestatic features, severe parenchymal injury is considered highly unlikely. A single case of biopsy-proven periportal hepatic fibrosis in a patient receiving 'Tagamet' has been reported.*

How Supplied: Tablets: *200 mg, tablets in bottles of 100; 300 mg, tablets in bottles of 100 and Single Unit Packages of 100 (intended for institutional use only); 400 mg, tablets in bottles of 60 and Single Unit Packages of 100 (intended for institutional use only); and 800 mg, Tablets in bottles of 30 and Single Unit Packages of 100 (intended for institutional use only).*

Liquid: *300 mg/5 mL, in 8 fl. oz. (237 mL) amber glass bottles and in single-dose units (300 mg/5 mL), in packages of 10 (intended for institutional use only).*

Injection:
Vials: *300 mg/2 mL in single-dose vials, in packages of 10 and 30, and in 8 mL multiple-dose vials, in packages of 10 and 25.*

Prefilled Syringes: *300 mg/2 mL in single-dose prefilled disposable syringes.*

Plastic Containers: *300 mg, in 50 mL of 0.9% Sodium Chloride in single-dose plastic containers, in packages of 4 units. No preservative has been added.*

ADD-Vantage®* Vials: *300 mg/2 mL in single-dose ADD-Vantage® Vials, in packages of 25.*

Exposure of the premixed product to excessive heat should be avoided. It is recommended the product be stored at controlled room temperature. Brief exposure up to 40°C does not adversely affect the premixed product.

'Tagamet' HCl (brand of cimetidine hydrochloride) injection premixed in single-dose plastic containers is manufactured for SK&F Lab Co. by: Travenol Laboratories, Inc., Deerfield, IL 60015.

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MEETING HIGHLIGHTS

15th International Chemotherapy Congress, Istanbul, Turkey

Extended care program reduces nursing home mortality rates

An extended care program, which trains nursing home personnel to recognize early symptoms of lower respiratory infections and thus expedite referral for hospital care, has been instrumental in achieving a 30% reduction in the mortality rate usually seen in this patient population, according to Dr. Philip Peterson of the Hennepin County Medical Center and the University of Minneapolis.

Dr. Peterson reported on a recent study showing that the mortality rate in nursing home patients (mean age 81) with pneumonia or bronchitis who were treated at the hospital could be reduced from an expected 40% to less than 10%.

In one randomized phase of the study, 30 patients received the quinolone ciprofloxacin orally and 30 received intravenous cefamandole nafate (Mandol). No patients died in the cefamandole group, while two of the ciprofloxacin group died. Another group of 64 elderly nursing home patients, not included in the randomized study for various reasons, had a mortality rate of 10% after being treated with a variety of cephalosporins, resulting in an overall mortality rate of 7.8% in the three treatment groups. In addition, most of the patients were discharged within the 7.5 day DRG hospitalization period.

Dr. Peterson suggested that although choice of drugs is important for a good outcome, early diagnosis and treatment of pneumonia in nursing home patients was equally crucial in improving their prognosis so dramatically.

Peritonitis: Imipenem monotherapy as effective as multi-drug regimen

Use of the single agent, imipenem/cilastin (Primaxin) is as effective in the management of acute bacterial peritonitis as the more complex three-drug regimen usually employed, according to a study reported by Dr. D. J. Leaper, University Department of Surgery, Medical School Unit, Southmead Hospital, Bristol, U.K.

Imipenem/cilastin (500 mg qid for a minimum of 5 days), was administered intravenously to 19 patients (mean age 76) who had moderate to severe acute peritonitis. Clinical cures or improvements were noted in 84% of the patients who received the single agent.

Of 24 patients (mean age 68) treated with a combination of ampicillin, metronidazole, and gentamicin in the standard IV regimen for at least 5 days, 22 patients (91%) were cured or improved and there were two failures. None of the differences was statistically significant, Dr. Leaper said.

One patient in the imipenem group suffered a drip site bullous erythema, and one patient in the combined therapy group developed an allergic rash. Two mild cases of injection site phlebitis and one serious case were seen in the imipenem and combined therapy groups, respectively.

"There was a tendency for patients in the imipenem group to be older, female, and to be suffering with a more serious disease," said Dr. Leaper. "Nevertheless, the imipenem group suffered no more disadvantages than the triple therapy group," he said.

continued

Aztreonam: Lowers UTI incidence during catheterization

The monobactam antibiotic aztreonam (Azactam) provides effective prophylaxis against urinary tract infections in elderly catheterized patients, according to a study by Dr. G. Romanelli and associates in the Department of Internal Medicine, University of Brescia, Italy.

Sixty-two patients (mean age 76) with negative urine cultures were randomly allocated to receive either aztreonam (2000 mg) or placebo intramuscularly 3 hours before catheterization. In the placebo group, 19 of 28 patients (68%) showed positive urine cultures 1 week later, compared to two of the 34 (6%) aztreonam treated patients.

Microorganisms isolated after catheterization in the placebo group were *Escherichia coli* in ten patients, *Klebsiella* in five, and *Proteus mirabilis* in four patients, all of whom required treatment. In the aztreonam group, two microorganisms, *(Klebsiella* and group D *Streptococcus),* were found in the urine 3 days after catheterization, Dr. Romanelli said.

The researchers concluded that a single 2 g dose of aztreonam given intramuscularly is effective in preventing urinary tract infections in the majority of patients requiring catheterization.

Teicoplanin: Effective against resistant gram-positive infections

Teicoplanin, a new antibiotic undergoing clinical trials, could prove to be a one-shot alternative to other antibiotics commonly used to protect against frequently resistant gram-positive infections in patients undergoing hip or knee implants, reports Dr. Richard Wall, Department of Clinical Microbiology, Northwick Park Hospital, Harrow, U.K.

In a study of 176 patients (mean age 69) undergoing joint replacement operations, 72 patients received a single, intravenous dose of teicoplanin prior to anesthesia. Researchers found the antibiotic to be as effective in protecting against gram-positive *Staphylococcus* infections as two doses (pre- and post-op) of the cephalosporin cefuroxime in another 74 patients.

Dr. Wall suggested that since the use of cefuroxime in the Harrow hospital has been associated with diarrhea caused by *Clostridium difficile* in patients undergoing joint implants, teicoplanin may be a useful prophylactic alternative.

Other reports at the Istanbul congress indicated that teicoplanin is highly efficacious against gram-positive microorganisms resistant to most other antibiotics in the treatment of infections of the skin, soft tissues, the urinary tract, and the respiratory tract, as well as septicemia and endocarditis, in both young and old patient populations.

Currently, the studies have found no evidence that any of the gram-positive infections now prevalent in hospitals worldwide have developed resistance to teicoplanin.

ಆರೋಗ್ಯಪೂರ್ಣ ಶರೀರ

— MANUSH, CHINTHANI.

1. (ಆದಿಸತಿ) ತಲೆಯಿಂದ ಮಧ್ಯಭಾಗಕ್ಕೆ ತಲೆಕೆಳಗೆ ಮಾಡಿ ಮಲಗಿದಾಗ ಉಷ್ಣವು ಶಾಂತವಾಗುತ್ತದೆ.

ಮಂಡಲವ್ಯಾಧಿಗೂ ಸಹ ತಲೆಯಿಂದ ಮಧ್ಯಭಾಗಕ್ಕೆ ಕೈ ಆಡಿಸುತ್ತಿದ್ದಂಗೆ (ಮಲಗಿಸಿ) ಸಹಾಯವಾಗುತ್ತದೆ.

2, 3. ತಲೆಯಿಂದ ನೋವಿಗೆ ಒತ್ತಿದಾಗ ತಲೆಯಿಂದ ನೋವು ಪಾಸಿಂಟಾಗುತ್ತದೆ ಮತ್ತು ಅರ್ಧ ತಲೆನೋವಿಗೆ ಉತ್ತಮವಾಗುತ್ತದೆ.

4. ಮಕ್ಕಳಿಗೆ ಮಂಡಾಗಿನಲ್ಲಿ ನೋವಿರುವುದು ಪಾಸಿ.

5. ಜಿಡಾಲುಲ್ಲ ನೋವಿರುವುದರಿಂದ ಹೆಬ್ಬೆರಳಿನಿಂದ ಒತ್ತಿದಾಗ ಪಾಸಿ.

6. ಕಿವಿ ನೋವಿರುವುದರಿಂದ ಮತ್ತು ಕಿವಿ ನೋವಿದ್ದಲ್ಲಿ ಪಾಸಿಂಟಾಗುತ್ತದೆ.

7. ದವಡೆ ಹಲ್ಲಿನ ನೋವಿದ್ದಲ್ಲಿ ಪಾಸಿಂಟಾಗುತ್ತದೆ.

(13ಅ) ಮೇಲಾಭಾಗದ ಹಲ್ಲಿನ ನೋವಿದ್ದಲ್ಲಿ ಮತ್ತು ಹಲ್ಲಿನಲ್ಲಿ ರಕ್ತ ಸ್ರಾವವಾಗುತ್ತಿದ್ದಲ್ಲಿ ಪಾಸಿಂಟಾಗುವುದು.

10, 9. ಆಸ್ತಮಾ ಇದ್ದವರಲ್ಲಿ ಮತ್ತು ಉಸಿರಾಟದ ತೊಂದರೆಗೆ ಪಾಸಿ.

18, 19. ತಾಂತುಂದಿರಿಗೆ ಹಾಲು ಆಗದೆ ಇದ್ದಲ್ಲಿ ಒತ್ತಿದಾಗ, ಎದೆ ನೋವಿದಾಗ ಪಾಸಿ.

14. ಹೊಕ್ಕಳ ಮೇಲಾಭಾಗದ ನೋವನ್ನು ಅರಿಂಟುಲು ಹೆಬ್ಬೆರಳ ಮಧ್ಯಭಾಗ ಹಾಗೂ ಬೆರಳು ತುದಿಂಟುಲ್ಲಿ ತಿಳಿಂಟುಬುತ್ತದೆ.

20. ಹೊಕ್ಕಳ ಸುತ್ತ ಎರಡು ಬೆರಳು ಬಿಟ್ಟು ಹಿಡಿದಾಗ ಹೊಟ್ಟೆ ನೋವು ಮತ್ತು ನಾಲ್ಕು ಬೆರಳು ಬಿಟ್ಟು ಹಿಡಿಗುಕೊಂಡಾಗ ಹೊಟ್ಟೆನೋವು ಮತ್ತು ಪಾಸಿ.

16, 17. ಪಾಂತಿ ಮೇಲಾಭಾಗದ ನೋವಿಗೆ ಪಾಸಿ.

11. ತಲೆಯಿಂದ ಮೇಲೆ ಮತ್ತು ನರಗಳ ಎಳೆತದಿಂದ ಪಾಸಿ.

7. ಕಿವಿ ಮತ್ತು ಒತ್ತಡದಿಂದ ಪಾಸಿ. (ದವಡೆಗಳ ಒತ್ತಡದಿಂದ)

12, 22. ಬೆನ್ನಿನ ನೋವು ನರಗಳ ಒತ್ತಡದಿಂದ ಪಾಸಿ.

13. ತೋಳಿನ ನೋವು ಒತ್ತಡದಿಂದ ಪಾಸಿ.

23. ಸೊಂಟನೋವಿಗೆ ಒತ್ತಡದಿಂದ ಪಾಸಿ.

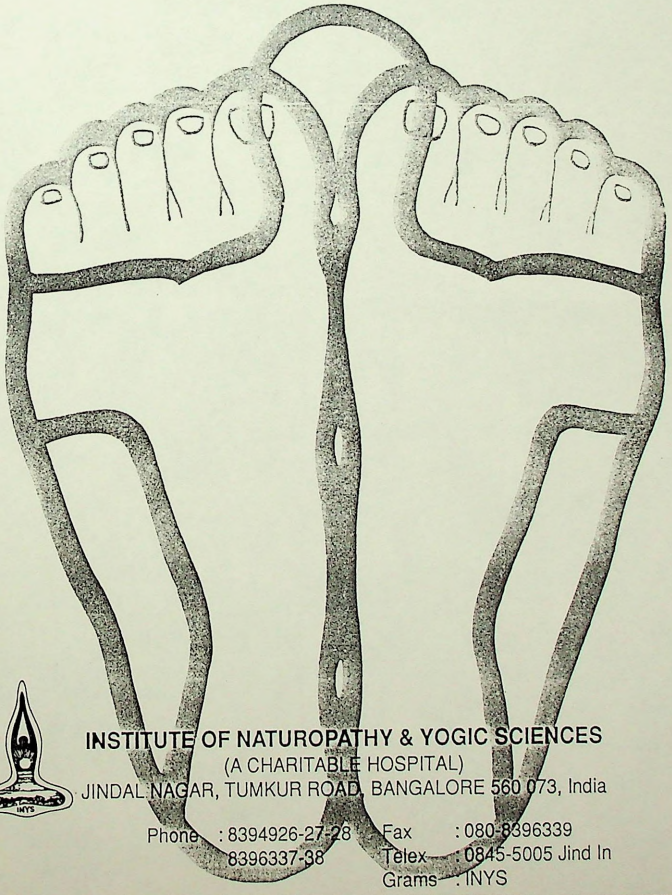
24, 25, 26, 27. ಕಾಲಿನ ನರಗಳ ಒತ್ತಡದಿಂದ ಪಾಸಿ.

28, 29. ಕಾಲಿನ ನೋವಿಗೆ ಒತ್ತಡದಿಂದ ಪಾಸಿ.

30. ಹೊಕ್ಕಳ ಕೆಳಭಾಗದ ನೋವನ್ನು ಕಾಲ ಬೆರಳು (ಕಾಲಿನ ಪಾದ) 2—ಬೆರಳುಗಳ ಮಧ್ಯಭಾಗದಲ್ಲಿ ನೋವನ್ನು ತಿಳಿಂಟುಬಹುದು.

31. ಹೆರಿಗೆ ಕಾಲದಲ್ಲಿ ಕಷ್ಟವಾದ ಹೆಬ್ಬರಳಿನ ಒತ್ತಡದಿಂದ ಪಾಸಿ.

Reflex Zones
Charts



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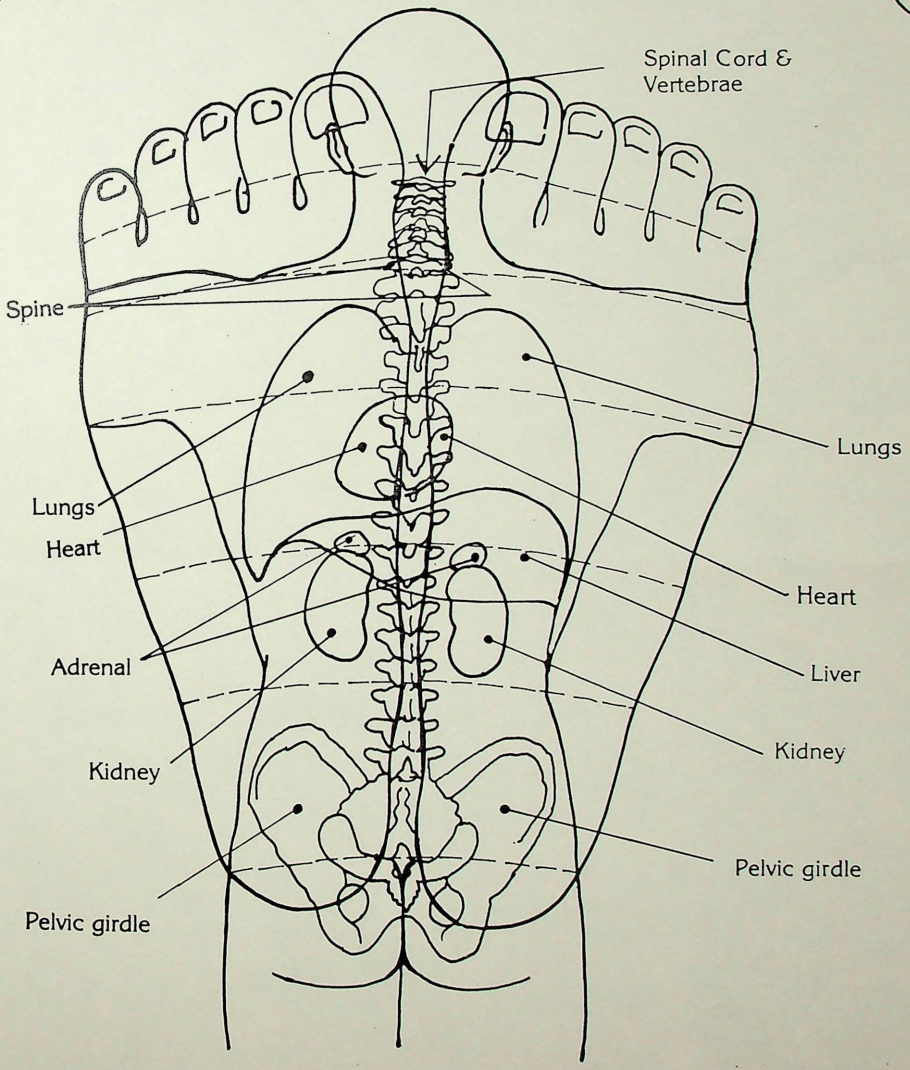
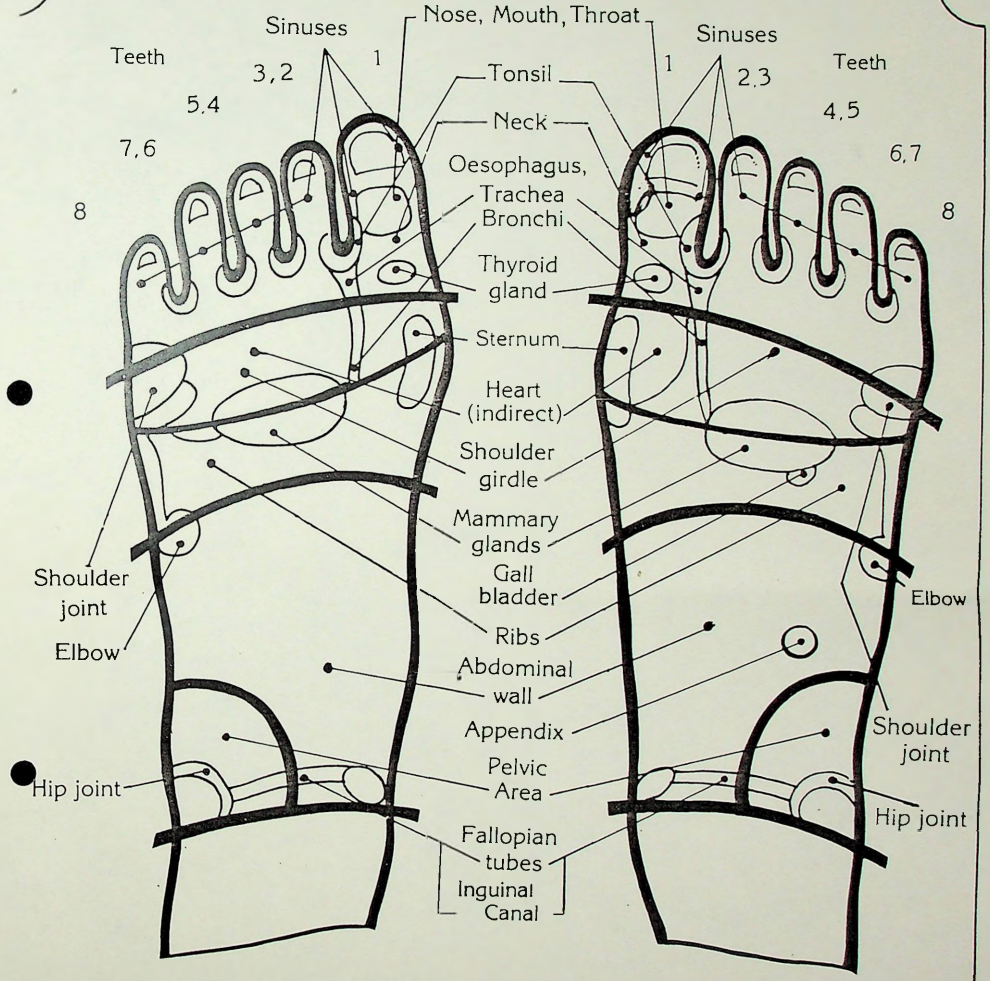
RELATIONSHIP OF THE FEET TO THE SPINE & INTERNAL ORGANS



The dotted lines denote the relationship of the back of the feet to the spine and the internal organs.

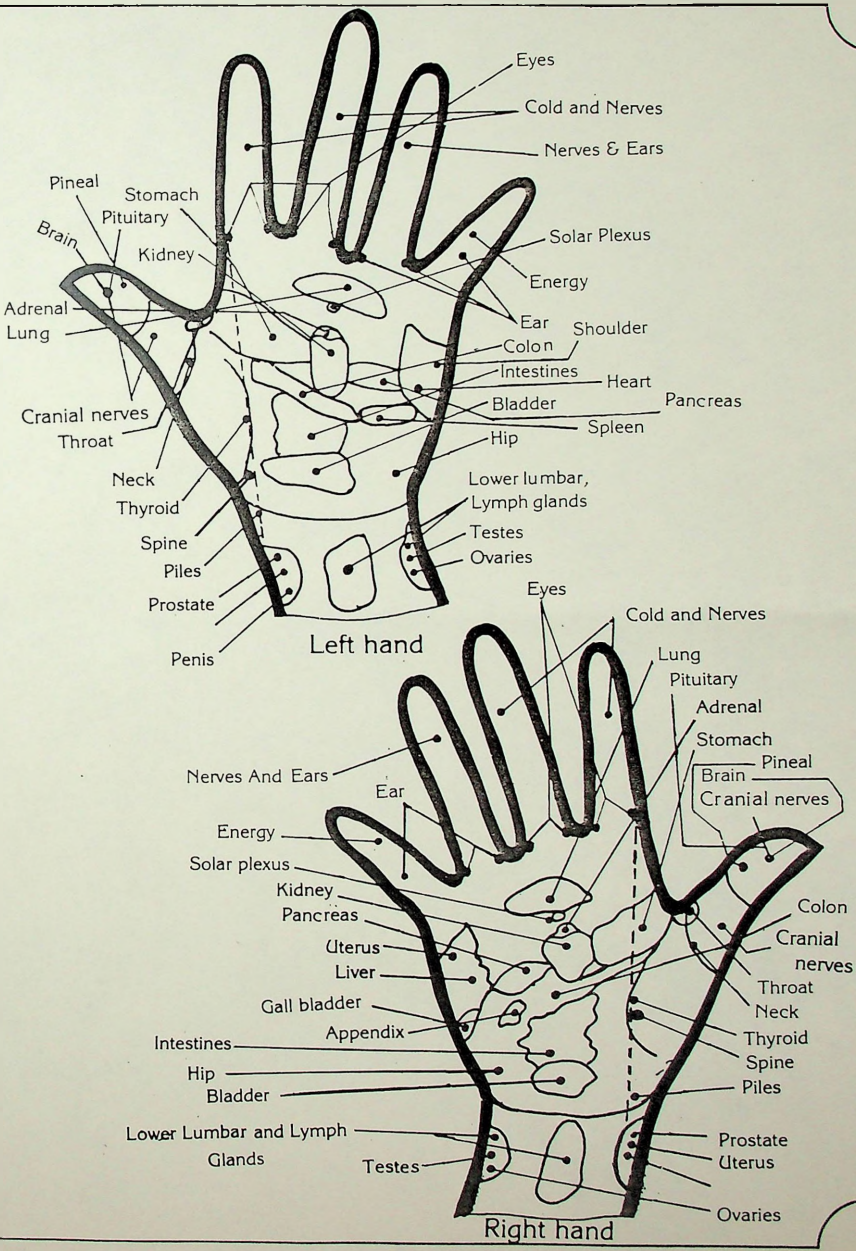
REFLEX ZONES OF THE DORSUM



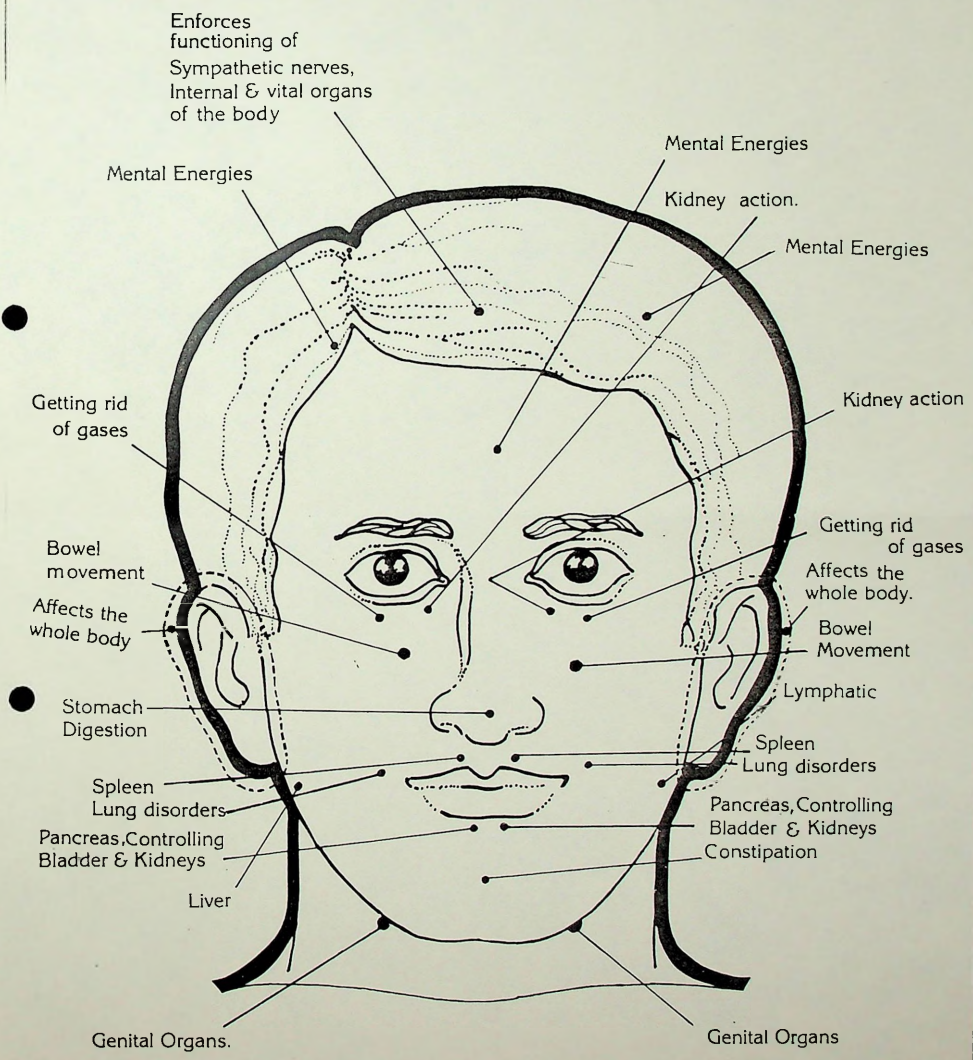
Left dorsum

Right dorsum

REFLEX ZONES OF THE HANDS



FACIAL REFLEX POINTS



Reflexology is one of the techniques gaining popularity now-a-days all over the world, since it is not only easy to understand but also to practice. Its philosophy and practice are similar to those of Zonal therapy, Accupressure, Accupuncture and Polarity techniques

The Human body has a tremendous energy to heal itself. This healing energy surges through the body in specific pathways and could be tapped at different points which are called Reflex Points

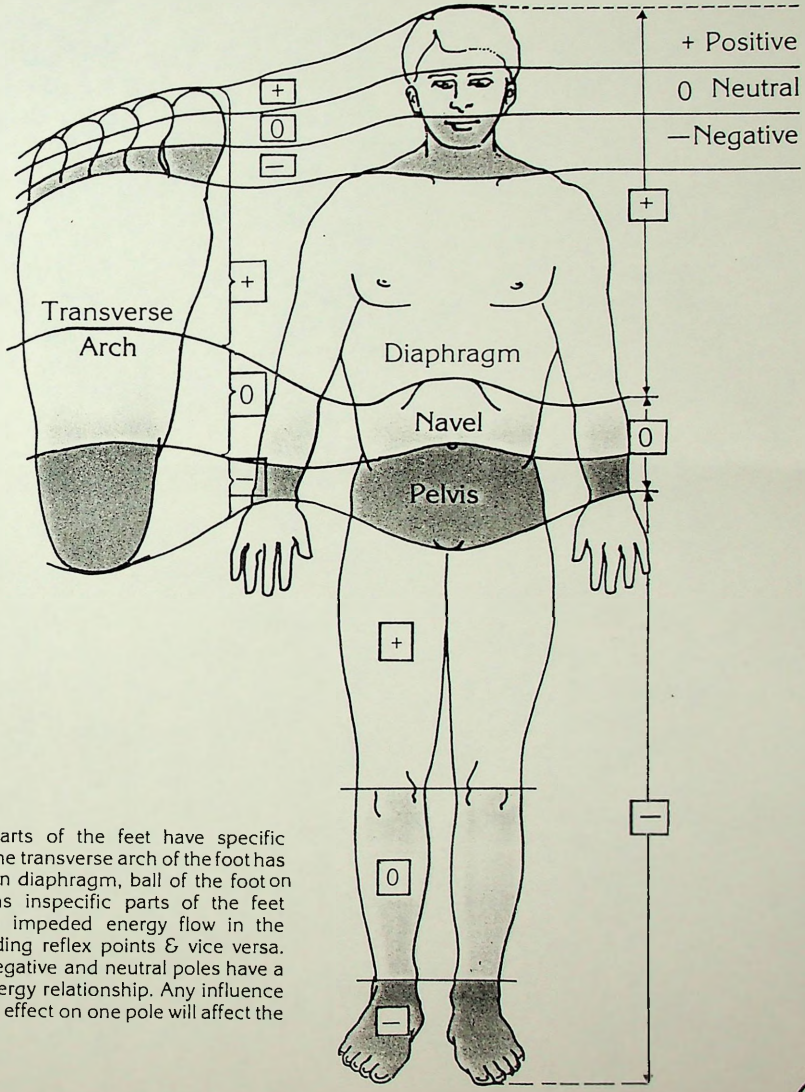
Reflexology is the technique of massage which has a definite effect on the internal organs. When pressure is applied on the Reflex points the functioning of the corresponding internal organs could be rectified and regulated. This treatment gives faster and amazing results. Reflexology is not only a treatment but also a diagnostic indicator of diseases in some cases, in their early stages. This simple technique helps you to maintain good health and vitality

Location of tender-points is an art which can be mastered by practice. Press the reflex points gently with your thumb and index finger. Blunt-end of a pencil could also be used for the purpose. Feel the tenderness of Reflex points. The tender points denote disorder or mal-functioning of the corresponding internal organs. In these two charts, the reflex points on feet, hands and face and their corresponding internal organs are indicated

Pressure massage may be given over the tender point for 1–2 minutes. The pressure could be maintained either constantly or intermittently. At the end of the treatment, the entire feet or hand should be massaged. The treatment should be continued for at least 10 days

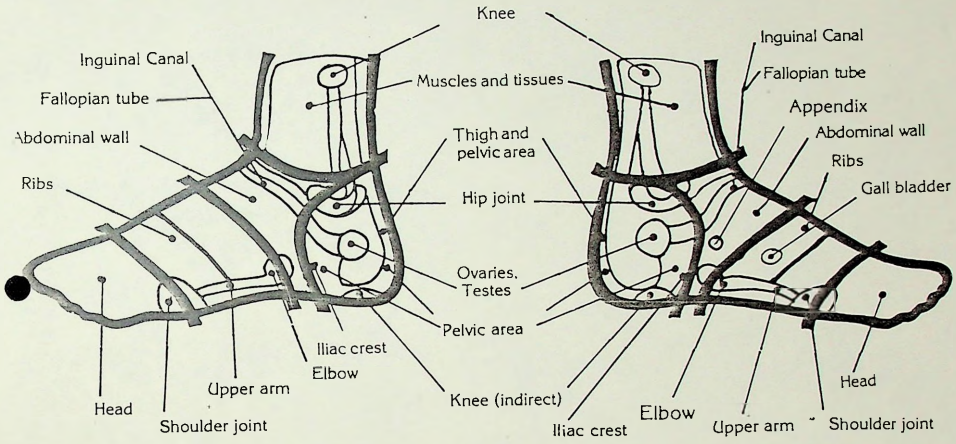
After finishing the treatment, observe the beneficial response and the respite you get

REGIONAL ENERGY RELATIONSHIP



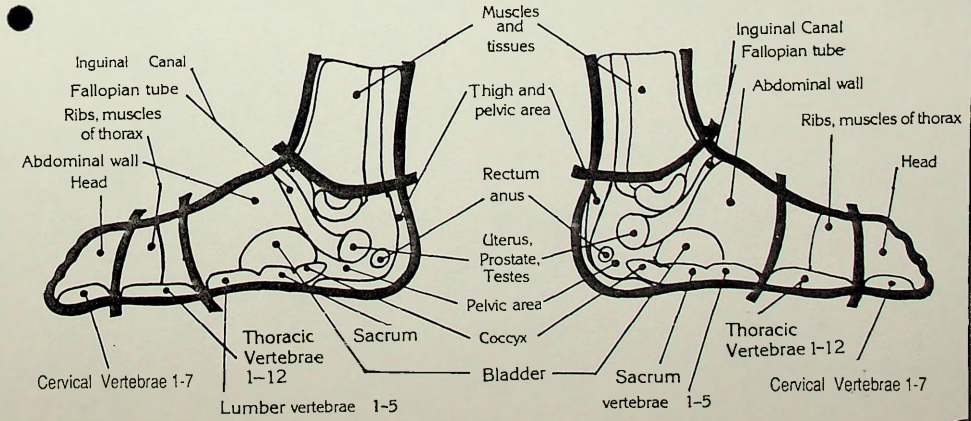
Specific parts of the feet have specific reflexes. The transverse arch of the foot has a effect on diaphragm, ball of the foot on chest. Pains inspecific parts of the feet denote an impeded energy flow in the corresponding reflex points & vice versa. Positive, negative and neutral poles have a definite energy relationship. Any influence that has an effect on one pole will affect the other two.

REFLEX ZONES IN THE OUTER & INNER SIDES OF THE FEET



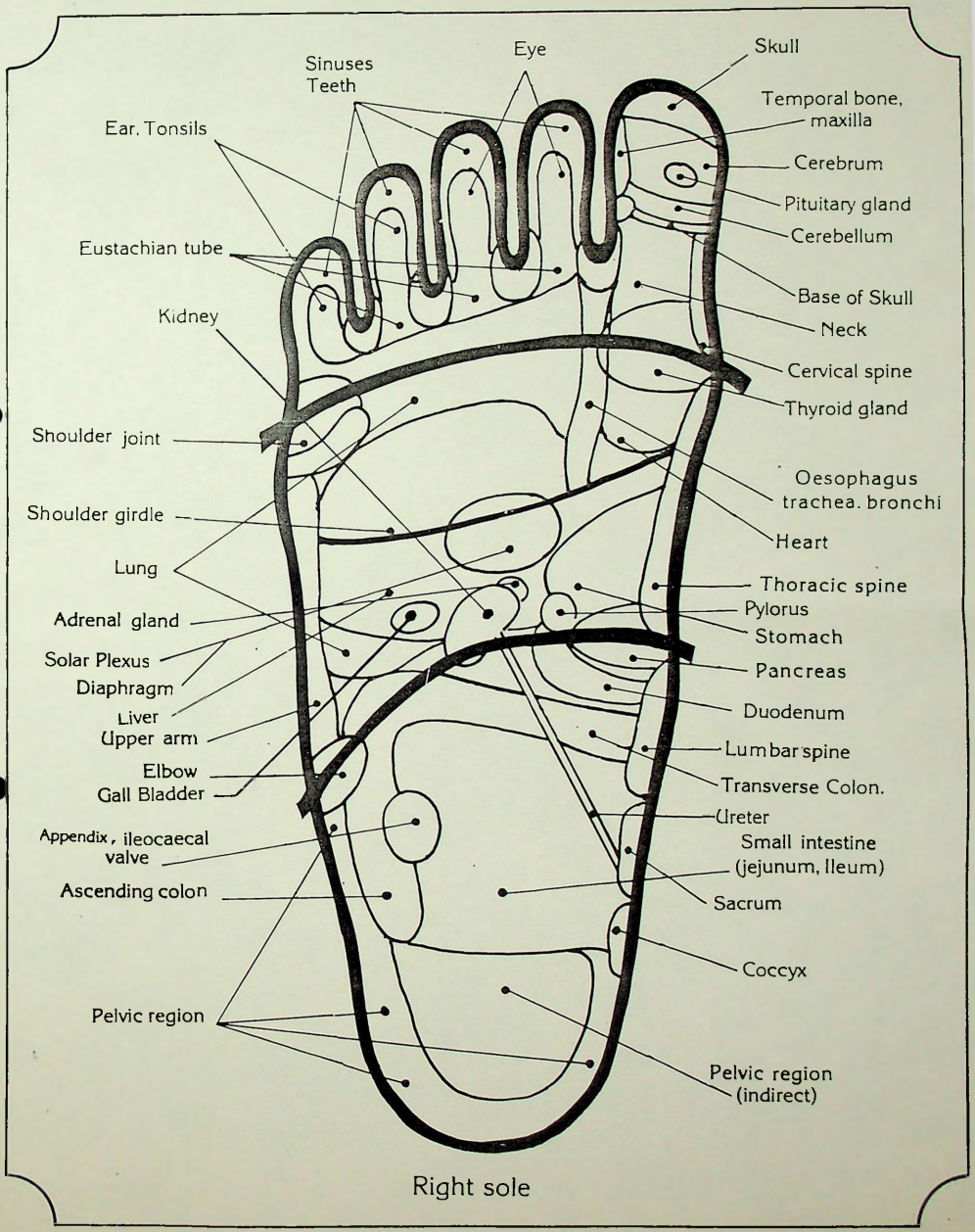
Left Outer Side

Right outer side



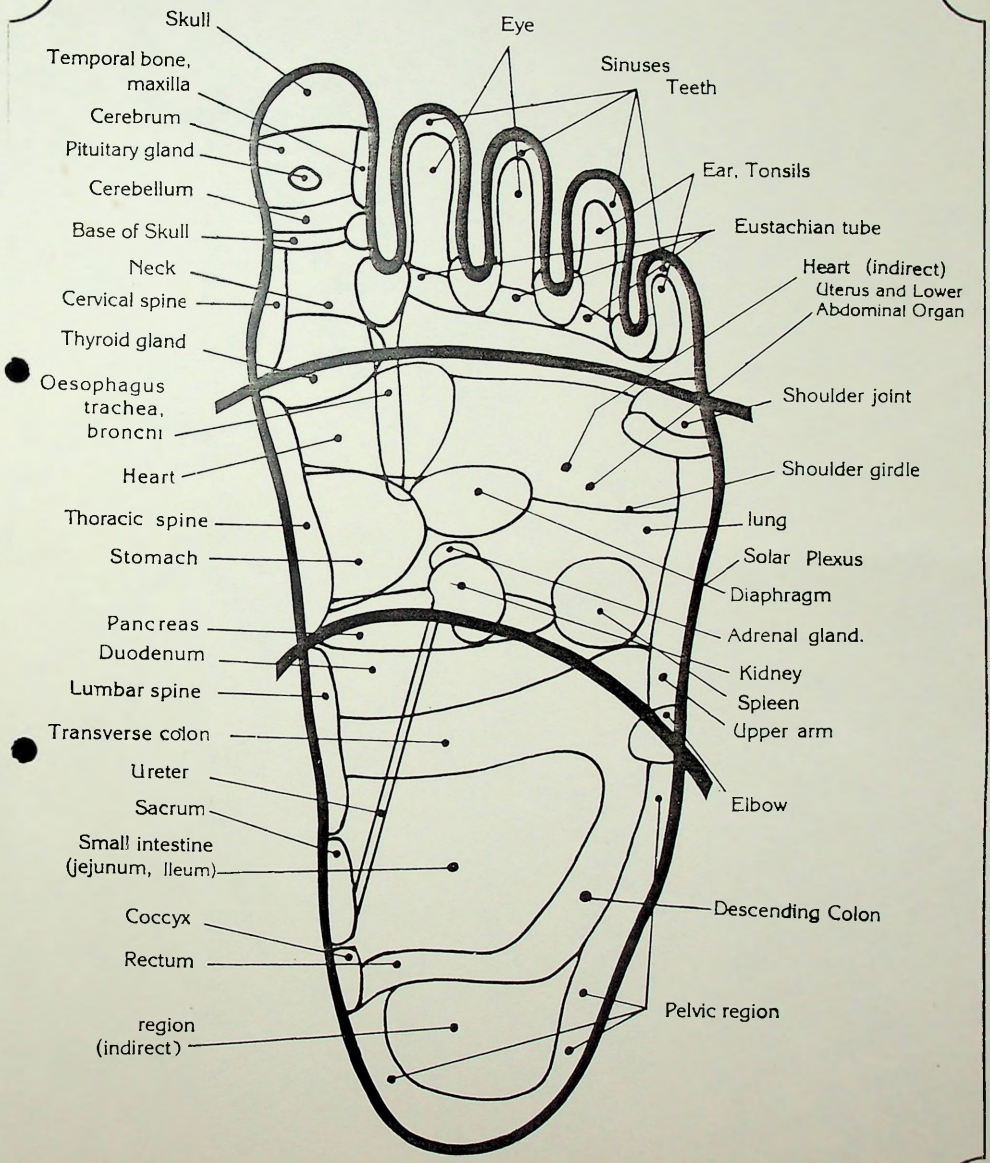
Right inner side

Left inner side

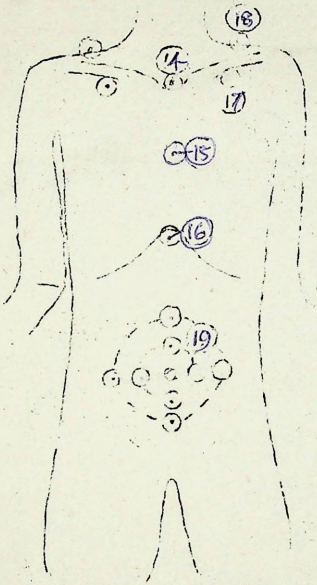

Sinuses
Teeth
Eye
Skull
Temporal bone, maxilla
Ear. Tonsils
Cerebrum
Pituitary gland
Cerebellum
Eustachian tube
Base of Skull
Neck
Kidney
Cervical spine
Thyroid gland
Shoulder joint
Oesophagus
trachea. bronchi
Shoulder girdle
Heart
Lung
Thoracic spine
Pylorus
Adrenal gland
Stomach
Solar Plexus
Pancreas
Diaphragm
Duodenum
Liver
Upper arm
Lumbar spine
Elbow
Transverse Colon.
Gall Bladder
Ureter
Appendix, ileocaecal valve
Small intestine (jejunum, Ileum)
Ascending colon
Sacrum
Coccyx
Pelvic region
Pelvic region (indirect)

Right sole

OF THE FEET

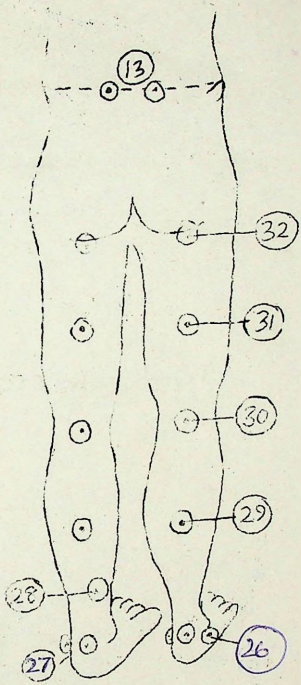


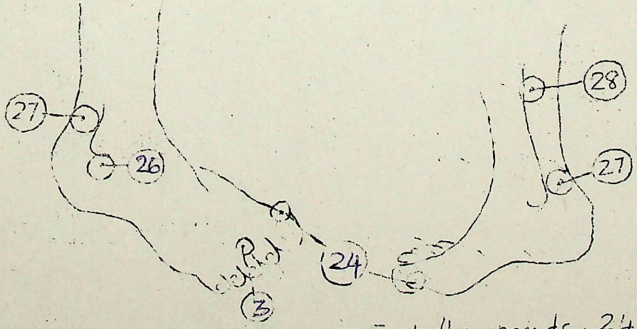
Left sole



Chest points 14 to 18

Abdomen points - 19

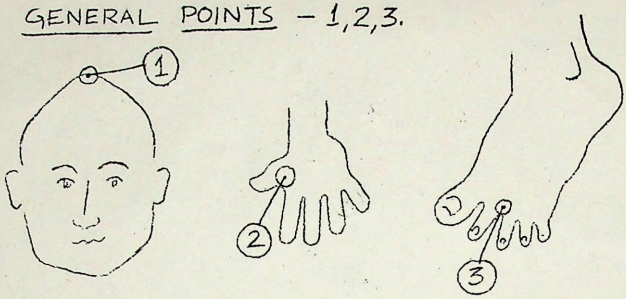




Foot/Leg points - 24 to 28

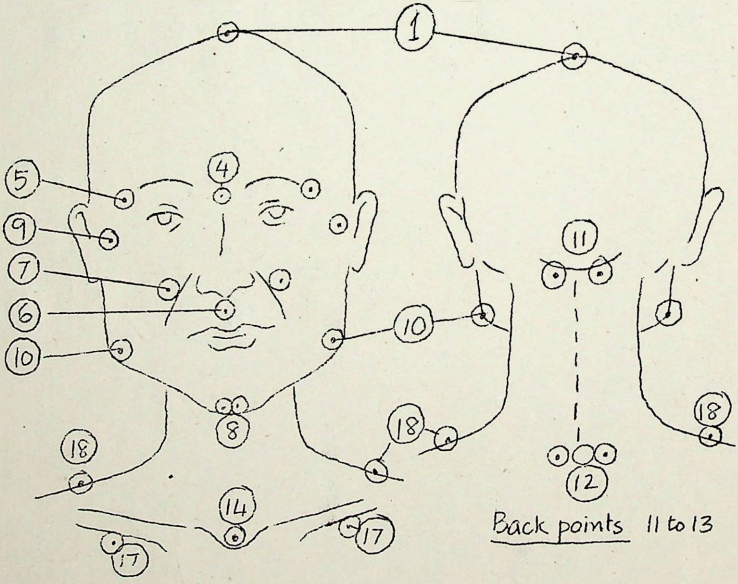
Back of leg points 29 to 32

GENERAL POINTS – 1, 2, 3.



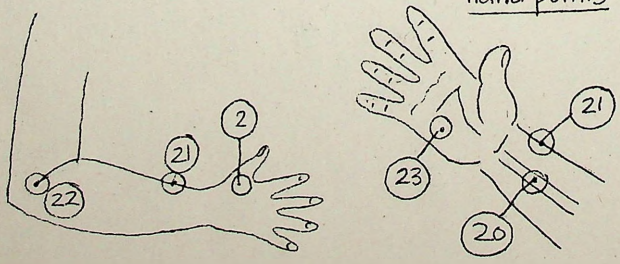
SPECIFIC POINTS

Face points - 4 to 10



Back points 11 to 13

Hand points - 20 to 23



A C U P R E S S U R E *

Introduction

'Acus' in Latin means 'point'. Acupressure is a system of health care which uses pressure on particular points of the body to produce relief from pain and other discomfort. The points are the same as used in the Chinese system of Acupuncture, where needles are used to stimulate these points.

So, Acupressure is Acupuncture without needles! This system has been prevalent in the East since long. It is called SHIATSU (finger-pressure) in Japan, MARMA CHIKITSA (point-treatment) in Ayurveda and VARMA KALAI (art of points) in Siddha systems of medicine. It is interesting to note that all these systems use similar points on the body to produce similar effects.

History

Acupressure and Acupuncture have been practised in India and China for over 3500 years. In India, it formed part of the Ayurvedic and Siddha traditions of medicine.

In China the Emperor of Tsin dynasty brought together all practitioners in China, to evolve a common system to be practised in his empire. It spread to Japan, Korea and surrounding countries from there.

This system did not progress much during the phase of colonisation of the East by Europeon countries. It survived in pockets where the influence of western systems of medicine was unable to reach.

During the decades between the 50's to 70's a revival of Acupuncture and Acupressure occured in China along with the cultural Revolution. Since then, it has spread to various parts of the world, and is undergoing study and validation by the western system of medicine apart from the people who are using it for its benefits.

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How and why does Acupressure work

The basic principles are derived from Eastern Philosophy, and rely on the concept of 'Life Energy'. This life energy is called 'Tehi' in Chinese, 'Prana' in India, and 'Bio-energy' by the western systems. For convenience of our understanding, we will refer to it as 'prana'.

Prana is the difference we see between the living and dead. For example, the tree has prana, while the table or chair made from its wood (dead) does not have prana.

We cannot see prana, but we can see its effects in a living being, in the form of growth, development, movement and reaction to stimuli. This disappears in death.

Prana extends all over the body and for a few inches beyond. We can feel the nearness of another person in public transports or lifts, when we are close enough for the pranas to interact! Prana has two aspects - the positive and the negative - called YANG and YIN in Chinese.

This Prana is thought to circulate in the body along "meridians" which are named after individual organs they are related to. Pain or discomfort extends along its meridian, when any organ is affected. For example, we have the heart, lung, stomach, liver, kidney, intestine and other meridians, which reflect the function of each organ. These meridians may be 'paired' i.e., are available on both sides of the body, or 'unpaired', as in the midline, or along the waist, wrist, neck, ankle etc., where it encircles the body.

Acupressure / Acupuncture points are located on these meridians and can modify the prana in them. They are like switches which control the electric current flow along wires. They are more like the imaginary lines of Equator, latitudes and longitudes we draw on the globe, or the boundaries which actually do not exist between countries/states/districts. All the paired meridians begin or end at the fingers or toes.

So, we can manipulate the prana in the body through these acupuncture points, bringing relief from pain and discomfort and

..3

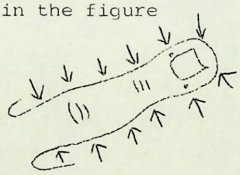
helping in treating disease. A number of traditional methods use these points in various ways, eg., using of ear-rings/piercing of nose, wearing of bangles, anklets and toe-rings. These are recommended for specific reasons by tradition, though the users may not be aware of it.

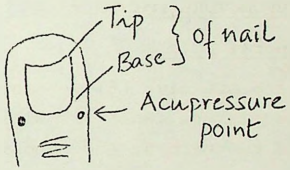
Identification of Acupressure points

Acupressure points can be easily identified by the peculiar type of pain they produce when pressed.

As seen earlier, the paired meridians begin or end at the fingers and toes. So, these are the best locations for us to find out how they feel.

Experiment : Press any finger of your hand at various locations as shown in the figure





You will find that the 'quality' of pain at the base of the nail is different when compared with other locations. This is because it is an acupressure point.

This "peculiar" quality of pain is described as a pleasurable pain by the Chinese.

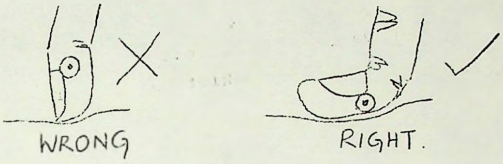
You will find a similar quality to all acupressure points we describe later. It is very important to be able to identify this.

Acupressure Method

The thumbs and fingers are usually used for acupressure, though objects made of wood and metal may also be used. The heels of the palms are also used. While using the thumb/finger, the

..4

therapist should take care to see that the pulp of the finger/thumb is used, and not the tip, as shown in the illustration. Also, the therapist should not grow the nails, which may injure the patients.



Duration of Acupressure:- 20 seconds to 1 minute of pressure and massage. Average 3 to 5 minutes. Maximum 20 minutes.

ACUPUNCTURE POINTS

General Points

There are five (5) General Points which are always used in Acupressure, which we will learn about first. One is on the head, and two each on the hands and feet. Then, we can move on to points which are more specific in their action. In brackets, next to each point, are the Chinese names, and meridian numbers, which are useful only to communicate to others about the points used. You need not worry about learning them to be able to do acupressure.

Point No.1 : Adhipathi (BAIHUI / GV-21)

This is the most important point in the body that balances the positive and negative aspects of the prana (the Yang and Yin) in the body.

Always begin with stimulating this point for one minute and end again with the same. This helps balance Yin and Yang both before starting treatment, and on ending.

The point is at the junction of the line joining the two ears,

and the midline going up from the nose, as in the illustration.

ALWAYS BEGIN AND END TREATMENT WITH - Adhipathi!
It is like the Mains switch for the prana in the body.

Point No.2 : (HEGU / L.I. 4)

This point is located on the highest point of the bulge when the thumb is held close to the palm. Press this point with the thumb and forefinger held apart. Then, you can feel the peculiar pain in the muscle mass - that is the point. It is in both hands.

Use: It is a very powerful pain relieving point, especially for the upper half of the body (above the navel).

It is the next common point to be used for problems in the upper half of the body.

Point No.3 (NEITING / St-44)
Location
This point is located in the web-space between the second and third toes of the foot. Separate the toes and hold the web between your fingers and thumb.

Use: It is a powerful pain-relieving point, especially for the lower half of the body (below the navel). It is on both feet. It is the next common point to be used for problems especially of the lower-half of the body.

SPECIFIC POINTS:

Now, having learnt the 5 General Points - One on the Head, and two each on hands and feet, let us proceed to specific points from Head to toe. For convenience, we will continue the numbering beyond three.

Point No.4 : (YINTANG / Ex-1)

Location: The central point, where the eye brows would meet. When you go up the nose-bridge, it strikes the point easily, as shown in the figure.

Use: For frontal headaches and sinusitis especially due to a cold. It is very useful for BLOCKED NOSE and BLEEDING from the nose.

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Point No.5 : (TONGZILIO / GB-1)

Location: Where the eye brows end. Different shapes of eyebrows are common. Where the eye brow ends, is a small pit. This is the point - Look in the mirror to locate it on yourself.

Use : For Headaches, sinusitis, pain in the eye and eye-strain.

Point No.6 : (RENZHONG / C.V.-26)

Location: It is in the midline, just below the nose. You can feel the nose bone and the front of the upper jaw when you press here. Remember the peculiar pain!

Use: It's most important use is as an Emergency point - called JING-WELL point. It is used to wake-up a person who has fainted. It is useful to stop sneezing and running nose. It helps relieve pain in front upper teeth.

Point No.7: (JULIAO / St-3)

Location: Directly below the middle of the eye, at the level just below the nose, as shown in the diagram. You can feel the depression below the cheeks.

Use: In tooth ache (upper joint); cold with pain in cheeks; and bleeding from nose.

Point No.8: (JIACHENG JIANG / Ex-5)

Location: On the chin, on either side of the midline. If we hold the chin side-ways with thumb and forefincer, both points are pressed together.

Use: Pain, especially lower tooth-ache; and for excessive salivation (drooling).
Children drool while teething and adults in paralysis of face muscles. It is helpful in both.

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Point No.9: (ZIAGUAN / St-7)

Location: One finger space in front of the middle point of the ear, just in front of the joint of the lower jaw. If you open and close the jaw, you can feel the jaw-joint. It is just in front of it, felt as a small pit.

Use: Toothache - upper back teeth; Ear ache, ringing in the ears; pain in jaw-joint.

Point No.10: (JIACHE / St-6)

Location: On the lower jaw muscle, just in front of the angle of the jaw. You can clench the teeth and feel the muscle underneath. Remember, don't press on the neck - it is dangerous. Press on the jaw-bone.

Use: Toothache - lower back teeth. Pain in tonsils and difficulty in swallowing.

Point No.11 (FENGCHI / GB-20)

Location: Just below the occiput (back of skull) where the muscles of neck meet the skull, two finger-width away from midline.

Use: Stiff-neck; Headaches with sinusitis; Hypertension.

Point No.12 (DINGCHUAN / Ex-17)

Location: Just next to the prominent spine where the neck joins the body - on the back. This spine becomes prominent when we bend our neck forward.

Use: Neck pain, back-pain, shoulder pain; and Bronchial asthma.

Point No.13 (QIHAISHU / UB-24)

Location: One finger width away from midline on the back at the level of the pelvic bone which can be felt on the sides of the body - as shown in figure.

Use: Low back ache; piles; pain in the pelvic organs, especially women.

..8

Point No.14 (TIANTU / Cv-22)

Location: At the centre of the notch above the sternum. Press on bone downwards. Do not press into the neck - it may choke a person.

Use: Bronchial Asthma; Bronchitis; Release of mucus from throat and lung; and difficulty in swallowing/breathing.

Point No.15 (SHANZHONG/CV-17)

Location: On the midline, at the mid-point of the sternum.

Use: Chest pain; Asthma; Bronchitis; cough; and especially in deficiency of milk production for lactating mothers - it is very useful. It does not produce milk in others- so, don't worry.

Point No.16 (JIUWEI / CV-15)

Location: Below the lower end of the sternum in the midline.

Use: Pain due to Gastritis; Hiccoughs; vomiting; chest pain, especially in region of the Heart.

Point No.17 (YUNMEN / L-2)

Location: Front of the chest, below the mid-point of the collar bone.

Use: Cough; Asthma; Arthritis of shoulder joint; Breathing difficulty.

Point No.18 (JIANJING / GB-21)

Location: Highest point on the shoulder - midway between the prominent vertebra and acromion.

Use: Frozen shoulder; back ache; stiff neck; pain and nerve disorders of the upper limbs.

It is a dangerous point. If too much pressure is used, a person may faint or feel weak in the upper limbs. It is a karate point used to immobilize the hands.

Point No.19: (Abdomen points around navel)

Location: These are two sets of 4 points each around the navel. The first (inner) set is two finger width away from the navel, above, below and on both side. The second(outer) set is four finger widths away).

Use: Inner-set for pain around the navel, usually due to small intestine problems/colics/worms, etc. Outer set for pain from large intestine.problems and stomach.

PINCH the skin at these points with finger and thumb - do not press into abdomen. The finger width measurement is - patient's fingers. So, for a child, use width of child's fingers - not yours!

IN ACUPRESSURE, WHENEVER FINGER-WIDTH IS MENTIONED,
IT IS ALWAYS THE PATIENTS' FINGERS.

Point No.20: (NEIGUAN, P-6)

Location: 3 fingers above the wrist-crease on the front of forearm between two tendons which can be felt when the palm is made into a tight fist.

Use:
1. For nansea, vomiting and travel sickness.
2. For Hyperacidity, Castritis, chest pain.
3. Anxiety, Asthma, and problems of joints and muscles of the upper limbs.

REMEMBER - there is a point in each hand.

Point No.21: (LIEQUE, L-7)

Location: 2 finger widths on the thumb-side edge of fore-arm-above the thumb.
Pinch the skin between finger and thumb.

Use:
1. Asthma and Bronchitis.
2. For pains/problems on back of head, neck and chest.

..10

Point No.22: (QUCHI - LI-11)

Location: Semiflex the elbow. The point is at outer end of the elbow-crease. Straighten the elbow and press.

Use:
1. Improves immunity and Homoeostasis.
2. Reduces anxiety, hypertension. It brings back mental balance in emotional states.

Point No.23:(SHAOFU, H-8)

Location: When you close the fist, it is between the tips of the little and ring fingers.

Use:
1. Chest pain and palpitation.
2. Painful urination, bed-wetting.

Point No.24: (DADUN, Liv-1)

Location: At the base of the nail on the big-toe. It is the first point on the Liver meridian.

Use:
1. It is a JING-WELL point. Yes! Emergency point, for all acute emergencies.
2. Itching genital area, excessive menstruation, prolapse of uterus and bed-wetting.

Point No.25: (YONGQUAN, K-1)

Location: In the hollow of the sole of the foot, in the middle, just behind where the front part of the foot touches the ground.

Uses:
1. It is a JING-WELL point.
2. Unconsciousness, convulsions, severe nausea,vomiting painful urination.
3. Pain of feet and arthritis small joints of foot.

Point No.26: (SHENMAI, UB-62)

Location: On the outer aspect of the ankle, just below the lateral malleolus.

Use:
1. It is a powerful sedative point.
2. Psychological disturbances, lack of sleep, low back ache.

POINTS TO REMEMBER WHILE DOING ACUPRESSURE

01. Do not press too hard and create pain. Firm pressure is adequate.

02. Stimulation ALWAYS starts with GENERAL points and again ends with Adipathi (Point No.1).

03. Stimulate continuously for 20 seconds to 1 minute at each of the points, and then repeat for a total period of 5 to 20 minutes. Use points on both sides of body where possible.

    If there is no relief in half an hour, try other points. Repeat 2 to 3 times a day for 3 to 5 days.

04. Acupressure reduces PAIN - Find out the cause of the pain and supplement with other methods you know. Acupressure can complement and supplement other methods of treatment.

05. The patient should be seated or lying down in a comfortable position for best effect.

06. The patient should not be with full stomach or starving. A gap of 1 hour to 2 hours before/after meals is adequate.

07. Do not use lower limb and abdomen points in pregnant women.

08. You can use pressure, or pinch the point between finger and thumb for the same effect.

09. The Therapist needs to be healthy to be most effective.

10. Maintain your health by pressing the points at the fingers and toes daily. It wakes you up and makes you most effective.

11. TEACH the patients how to use these points and make them independent in tackling their own problems.

12. You and the patient will not feel tired or exhausted if you do acupressure properly. It does not harm your PRANA. So, use your fingers and thumb - try not to use instruments which do not have prana.

ALL THE BEST IN YOUR HEALING EFFORTS

MAY GOD BE WITH YOU.

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* *

Point No.27: (KUNLUN, VB-60 and TAIXI, K-3)

Location: Hold the points on either side at ankle joint, between Achilles tendon and the bone. The outer point is Kunlun and the inner is Taixi.

Use: 1. Foot pain, calcaneal spur, sciatica, low back ache.

2. Urinary problems, impotence and retained placenta.

Point No.28: (SANYINJIAO, Sp-6)

Location: On inner side of lower leg, four fingers above medial malleolus, where bone and muscle meet.
Kidney, Liver and Spleen channels meet at this point.

Use: 1. For all urinary, genital and pelvic organ disorders.

2. For reducing pain during delivery.

3. For retained placenta after delivery.

Point No.29 : (CHENGSHAN, UB-57)

Location: In the middle of the calf where the calf muscle becomes a tendon.

Use: 1. Sciatica, leg-cramps, polio.

2. Prolapsed rectum.

Point No.30 (WEIZHONG, UB-40)

Location: Mid point, hollow back of knee joint.

Use: 1. Sciatica, low back ache, menstrual disorder.
2. Arthritis of knee-joint.

Point No.31: (YIN MEN, UB-37)

Location: Centre of back of thigh.

Use: Low back ache, sciatica, paralysis, polio.

Point No.32: (CHENGFU, UB-36)

Location: Mid point of gluteal fold.

Use: 1. Low back ache, sciatica, arthritis of hip.
2. Piles.

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POINTS TO REMEMBER WHILE DOING ACUPRESSURE

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Lecture notes used to CHN/ Medical Students at St Johns Medical College.

ACUPUNCTURE - I.

I. Aldoms Huxlery in his forward to Felix Mann's "ACUPUNCTURE : CURE OF MANY DISEASES" says, " that a needle struck into one's foot should improve the functioning of one's liver is obviously incredible. It can't be believed, becaues in terms of currently accepted Physiological theory, it makes no sense. Within our system of explanation there is no reason why the needle prick should be followed by an improvement of Liver function. Therefore, we say it can't happen.

The only trouble with this argument is that, as a matter of empirical fact, it does happen."

In Latin, 'Acus' means 'needle' and 'Pungure' means 'Puncture' - a western name for this oriental method of therapy using needles to puncture the skin. The chinese name for this is CHEN CHIU.

Historically, Acupuncture dates back to beyond 3500B.C. /first systematised during the Tsin dynasty(A.D. 356 - 420)/ survived many ups and downs till its revival as a matter of cultural pride at the dawn of the Peoples Republic of China.

After exposure to Western Medicine, "Scientific" methodology has been employed in observing, documenting, explaining, researching and exploring the horizons of Acupuncture - since, as late as 1958 A.D.

THEORIES OF ACUPUNCTURE:

I. Traditional Chinese Theory:

This is based on the concept of 'Qi' of 'Chi' - the life energy - the invisible force present in all living forms of life - Similar to the Indian concept of PRANA/PRANAVAYU.

'Qi' consits of 2 aspects - 'YIN' & 'YANG'.

- Yin stands for all that is negative/female/moon/earth/cold/ weakness/etc.
- Yang stands for all that is positive/male/sun/sky/heat/ strength/etc.

Health is a state of balance between the two, and disease - an imbalance.

The channels through which 'Qi' flows in the body are the meridians - 12 paired & 8 Extraordinary meridians.

Also incorporated in the traditional system is the five - element theory(fire/earth/metal/wood/water), governed by various laws like mother and son law/Husband-wife law/Midday-midnight law etc.

It seems fairly certain now that the meridian system is a philosophic, not a medical entity. It has served its purpose well, but will soon be replaced by a sounder neurophysiologic theory.

"Peking Medical Review" - it was found that about half the known acupunctural points are located right over various nerves and the rest are within a half centimetre of one or another nerve.

II. Theory of Hypnosis: KROGER - 1972.

We know that simple operations can be done by hypnosis alone - 5 to 15% of subjects are susceptible. Chinese statistics of greater than 80% success, leaves a huge unexplained gap where some other mechanism of analgesia is undoubtedly at work, and, the selectivity and reproducibility is remarkable.

If there is a hypnotic element in Acupuncture it appears to be a corolary and not an essential part of the working mechanism(AC in children and animals).

III. GATE-CONTROL THEORY OF PAIN - Ronald, Melzack & Wall - 1972.

Pain impulses controlled and modulated by:

I functional gate - Substantia gelatinosa of spinal cord.
II functional gate - Opposite spino-thalamic tract.

IV. VISCERO-SOMATIC REFLEX THEORY - Felix Mann 1972

Based on reflex called 'Cutanco-Visceral reflex' on observation of phenomenon of 'Referred pain'.

V. THEORY OF DEFENCE MECHANISM & TISSUE REGENERATION - Cracum - 1973.

Through activation of neuro-endocrine system, and later the Reticulo-endothetial system - based on :

a) ACTH production
b) Leucocytosis espedial of neutrophils } on acupuncture stimulation.

- PLATT 1974 - a) Decreased serum triglyceride concentration
b) Serotonin and SRS-A production.

VI. ENDORPHINE RELEASE THEORY (ROMERANZ/1976)

VII. THALAMIC NEURONE THEORY (LEE - 1977/78)

based on any pathological process setting up a focus of abnormal enectro chemical activity in the Hominculns.

Other Theories:

VIII. THE KYUNGPANK SYSTEM THEORY: proposed by a Korean team headed by KUM BONG HAN who injected radio-Luscent material at Acupuncture points and demonstrated flow along specified meridians independant of vascular/lymphatic/ nervous system channels.

IX. KIRLIAN PHOTOGRAPHY: S.D. KIRLIAN & V KIRLIAN in 1939 - Photographed living beings under high frequency high voltage electric fields and showed an electric area around human beings with acupuncture spots as bright spots. - Not reproducible, hence unreliable.

METHODS OF DIAGNOSIS

1. History taking - Past/present/Family etc.
2. Physical examination - Inspection/palpation/percussion.
3. Palpation of Alarm points & Ah-Shi points
4. Pulse diagnosis - Rate/Rhythm /Volume/Character/Strength

Traditional pulse diagnostic methods:

- 3 positions on Radial pulse

First (Most distal) - Tsun
Second(middle) - Chin
Third(proximal) - Kuan.

Left Hand

Position	Superficial	Deep
I	Small intestine	Heart
II	Gall Bladder	Liver
III	Urinary Bladder	Kidney

Right Hand

Position	Superficial	Deep
I	Large intestine	Lung
II	Stomach	spleem
III	Triple warmer	pericardium

ALL DEEP PULSES ARE YIN PULSES - ALL SUPERFICIAL ONES ARE YANG PULSES

- For health and well being of the body and mind, there should be, sufficient and equal energy in each of these meridians/pulses.

- The physician keeps his own pulses healthy and uses them as standard

- The patient should be relaxed/rested.

- Surroundings should be quiet.

- Over 300 qualities of the pulse are described by traditional practtioners and a trainee undergoes 3 to 5 years of training in pulse diagnosis alone.

ACUPUNCTURE - II

In the past, needles made of stone, bone, Bamboo etc. were used presently, only metalic needles made of tempered steel/gold/silver/copper/bronze are used. The commonest types of needles used are:

1. The filiform needle
   - Diameter is variable - commonest - 30 to 32 funch gauge needles.
   - Length variable - 1CM to 15CMs. - The choice depends on location and type of acupuncture point to be stimulated.
2. The triangular needle: used where bleeding is required, since the needle has three cutting edges.
3. Seven star needles (plum blossom needles) : Seven small needles are arranged like a star on the head of a hammer - used for superficial light stimulation.
4. Press needles: 1 mm in length with a button type of base - for ear puncture and for retention.
5. Intra-dermal needles: 2 to 5mm in length and extremely thin (wire like - 30 size wire).

Sterilization - with 70% alcohol/not to be boiled.

DIRECTION OF INSERTION:

a) perpendicular - 20° to skin surface
b) slanting or oblique - 30° to 60°
d) Horizontal - 10° - 20°

Type of stimulation

a) up and down movements
b) Rotation
c) Flicking
d) Vibration
e) Electrical stimulation.

Duration of stimulation:

A) Short - 20 Sec. to half minute.

b) Intermediate - 20 Secs. with stops for 2 to 3 mins.
- for 15 to 20 minutes.

c) Continuation - 1 to 2 hrs - till relief/desired result is obtained

What happens (subjective) when Acupuncture needle stimulation is don

a) Sharp pain - when the needle enters the skin('A' group of delta fibres)

b) Soreness characterised by dull pain-Stimulation of C fibers.

c) Heaviness - Stimulation of presssure sensitive corpuscles.

d) Feeling of distension/swelling-interference with micro-circulation and increased cappillary permeability.

e) Reddish corona - due to vasodilatation of arterioles.

f) Warm sensation-due to above and increased circulation.

g) Continued manipulation-increase in threshold(analgesia/hypalgesia)

h) Further manipulation (45-60mins.)- numbness spreads and appears in areas distant from point(useful in surgery)

EFFECTS PRODUCED:

i) Relief from pain(Analgesia/hypalgesia)
ii) Relaxation of spastic muscles.
iii) Improved microcirculation locally
iv) Improved microcirculation as a distal effects
v) Lowering of a raised B.P.
vi) Lowering of blood lipid concentration/stimulation of hypoly
vii) Relief from hypersensitivity of skin and mucous membrane
viii) Sedation and relief from mental depression.
ix) Stimulation of hormonal release - ACTH like response
x) Increase in immune responses and resistance to bacterial infections (neutrophilia)
xi) Hypnotic effect - as in any other therapy.

(1) Acupuncture/pressure is one of the methods employed in addition to herbal medicine / Medicine etc.

(2) Preventive Acup. - Physician pays if pt. is ill.
< Japs method of relaxy

(3) JAP - SHIATSU

(4)

ACUPUNCTURE - III/IV/V

There are 12 paired meridians and 8 extra-ordinary meridians according to traditional concepts. We will consider the most useful of those points as far as practice is concerned.

The unit of measurement used to locate these points from anatomical landmarks is the 'T-sun'.

1 T-sun = a) distance between palmar creases of the proximal and distal interphalangeal joints of the middle finger of the patient when flexed at right angles.

or b) the breadth of the thumb at the interphalangeal joint.

Thus, point location is individualised for each patient.

Width of 2 fingers = 1.5 T sun

Width of 4 fingers = 3 T sun

1979 The WHO recommended nomenclature is used for description of points as below.

LUNG MERIDIAN:- Starts in 1st intercostal space in the infraclavicular fossa and extends to lateral side of the thumb close to the root of the nail. It has 11 points.

I Important point: L-7(58) LIE QUE

Location: 1.5 Tsun proximal to distal wrist crease, on outer aspect of fore arm. (link both hands such that the 'V' formed by the index fingers and thumbs of both hands touch at the base of the 'V' - the tip of the index finger now touches this point.

Peculiarity: It is a distal point for back of head, neck and chest.

Indications: a) Local diseases of wrist

b) Asthma/Bronchitis

c) Cervical spondylosis/stiff neck

d) Headache/Bell's palsy

Needling: 1 to 1.5 Tsun, slanting upwards.

LARGE INTESTINE MERIDIAN: Total no. of points - 20 starts at tip of Radial side of index finger and terminates between naso-labial groove and ala-nasi.

Important points:

11 a) LI - 4 (54) HEGU

Location- a) On the highest point of the bulge made when the thumb and index finger are held close together in adduction - on dorsum.

b) On the dorsum of the hand at the mid-point of 2nd metacarpal on the radial aspect.

Peculiarities- Distal point for face, front of neck and special organs. It is one of the most powerful analgesic points of the body.

Indications: Painful conditions of eye/Trigeminal neuralgia/lower tooth ache/Bells palsy/Fever/Point used for analgesia in upper half of body.
Needling - 0.5 to 1 Tsun - straight

III b) LI - 11(91) QUCHI

Location - Semiflex the elbow - lateral end of elbow crease.

Peculiarities: One of the best immunity improving, tonification and and homeostatic points.

Indications: Malaise /Weakness/Neurasthenia/Hypertension/Disorders of upper limb.

Needling: 0.5 to 1 Tsun straight.

IV c) LI-20(100) YINGXIANG:

Location: Mid point between highest point of the ala-nasi and angle of mouth in naso-labial groove.

Indications: Trigeminal neuralgia/common cold/upper tooth ache/ maxillary sinisitis and Facial Paralysis.

Needling: 0.3 to 0.5 Tsun straight

STOMACH MERIDIAN: Total points 45

Starts below eye lateral to ala-nasi and terminates at lateral side of tip of 2nd toe near the nail.

V a) St-6(148) JIACHE:

Location: Over masseter anterior to angle of mandible - clench tooth for better location.

Indications: Toothache/Parotitis/Facial nerve palsy/ Anaesthesia for tooth extraction and tonsillectomy.

Needling : 0.3 to 1 Tsun straight.

VI b) St-7 (149) XIAQUAN

Location: Centre of depression at lower margin of zygomatic arch, anterior to Temporo-mandibular joint.

Indications: Facial nerve palsy, Arthritis T/M joint, Toothache, tinnitus, trigeminal neuralgia. Anaesthesia for tooth extraction upper jaw.

Needling: 0.5 to 0.8 Tsun straight.

VII c) St. 36 (178) ZUSANLI:

Location: One finger breadth lateral to Tibial tuberosity.

Indications: Immunity improving and tonification. Polio/myopathies of leg/Gastritis/nausea/vomiting/constipation/TAO/varicose vein

Needling: 1 to 1.5 Tsun straight.

VIII d) St - 44 (186) NEITING

Location: Dorsum foot 0.5 Tsun proximal to web-space between 2nd &3rd toes

Indications: Arthritis ankle and small joints foot. Best analgesic point for pain in lower half of body. As a distal point for headache and toothache.

Needling: 0.2 to 0.5 Tsun straight or slanting.

IX SPLEEN MERIDIAN

Total no. of points 21. Starts - medial side of great - toe and ends at 6th intercostal space in mid-axillary line.

SANYINJIAO Location: 3 Tsun proximal to tip of medial mallcolus just behind medial borde and posterior surface of Tibia.

Peculiarity: Distal point for urogenital disorders and diseases of pelvic cavity. Kidney /liver/spleen channels meet at this point.

Indications: Bladder & Bowel disturbances/diseases of liver, spleen, kidney/ local problems/general tonification/painless child birth.

Needling: 1.5 to 2 Tsun straight.

HEART MERIDIAN:

Total No. of points - 9. Starts from centre of axilla, ends on lateral side of little finger proximal to corner of nail.

X H-8 (79) SHAOFU:

Location: On palm between 4th and 5th metacarpals- close fist and mark point between tips of little and ring fingers.

Indications: Local/Neuropathies of hand/chest pain/Enurosis & dysuria.

Needling: 0.5 tsun or less-straight.

SMALL - INTESTINE MERIDIAN:

Total No. of points - 19. Starts - corner of nail of little finger and en in front of tragus.

XI SI - 15 (130) JIAN ZHONGSHU:

Location: 2 Tsun lateral to spinous process of seventh cervical vertebra.

Indications: Frozen shoulder/backache/stiff-neck/Asthma.

Needling: 0.5 to 1 Tsun straight.

URINARY - BLADDER MERIDIAN: Total points 67. Starts medial canthus of eye, ends at lateral side of tip of little toe.

XII a) UB-24(255) QIHAISHU:

Location: Back, 1.5 Tsun lateral to tip of spinous process of 4th lumbar vertebra.

Indications: Hemmorrhoids/Prolapse rectum/lumbago.

Needling: 0.5 to 1 Tsun slanting towards midline.

XIII

b) UB-36 (267) CHENGFU:

Location: Mid-point of fluteal sulcus.

Indications: low-back pain/sciatica/arthritis hip/Hemorrhoids.

Needling: 1.5 to 3 Tsun straight.

XIV

c) UB - 57 (288) CHENGSHAN:

Location: On calf where 2 bellies of gastrocnemius meet.

Indications: Sciatica/leg cramps/Polio/Prolapse rectum/Plantar fasciitis.

Needling: 1 to 3 Tsun straight.

XV

d) UB - 60 (291) KUNLUN:

Location: Mid point between tendo-achillis and tip of lateral malleolus.

Indications: Polio/Paralysis lower limb/sciatica/lumbago/calcancal spur/ retained placenta/ + local.

Needling: 0.5 to 1 Tsun, straight.

XVI

e) UB - 62 (293) SHENMAI

Location: Outer aspect ankle, 0.5 Tsun below tip of lateral malleolus.

Peculiarity: Very potent sedatur point.

Indications: Local/low back ache/Insomnia.

Needling: 0.3 to 0.5 Tsun. straight.

KIDNEY MERIDIAN: Total points 27

Starts at junction of anterior 1/3rd and posterior 2/3rd of sole, and terminates in infraclavicular region.

XVII

a) K -1 (334) YONGQUAN

Location: In hollow of sole at junction of anterior 1/3rd and posterior 2/3rds in depression between 2nd and 3rd metatarsophalangeal joints. Best located when toes are flexed.

Indications: Powerful and effective Jing-well point during emergencies- Unconsciousness/epilepsy/nausea/vomiting/Plantar fascitis.

Needling: 0.5 - 1 Tsun straight.

XVIII

b) K -3 (336) TAIXI:

Location: Mid-way between tip of medial malleolus and Achilles tendon (opposite KUNLUN).

Indications: Genito-urinary problems/lower extremity diseases/local problems.

Needling: 0.5 to 1 Tsun straight.

PERICARDIUM MERIDIAN: Total points 9

Starts 1 Tsun lateral to nipple - ends at tip of middle finger.

XIX

P - 6 (68) NEIGUAN

Location: 2 Tsun above distal transverse crease of wrist, between tendons of Flexor carpi radialis and palmaris longus.

Peculiarities: 1) Distal point for abdominal and chest disorders.

2) Ling-connecting point of Pericardium with Triple-warmer meridian.

Indications: Chest pain/Myopathics/Gastritis/Hiccough/Vomiting/Asthma/ Hysteria.

Needling: 0.5 to 1 Tsun straight

Acupressure point for vomiting and travel sickness.

TRIPLE-WARMER MERIDIAN: Total points 23.

Starts corner of nail on ring finger on ulnar side, ends at lateral end of eyebrow.

XX

TW - 23 (123) SIZHUKONG:

Location: Lateral end of eyebrow

Indications: Frontal sinusitis/Migraine/Frontal and temporal headaches/diseases of eye.

Needling: 0.5 to 1 Tsun slanting posteriorly.

GALL-BLADDER MERIDIAN: Total points 44.

Starts - lateral canthus of eye and ends at tip of fourth toe.

XXI

a) GB-20 (207) FENGCHI:

Location: Between insertions of trapezoid and sternomastoid muscles - in hollow between external occipital protruberance and mastoid process

Indications: Stiff neck/cervical spondylosis/headaches/vertigo/hypertension.

Needling: 0.5 to 0.8 Tsun slanting, directed towards opposite eye.

XXII

b) GB-34 (221) YANGLINGQUAN:

Location: On antero-lateral aspect of leg in depression in front of and below head of fibula.

Indications: Hemiplegia/lumbago/Gastritis/Vertigo/Muscular dystrophies

LIVER MERIDIAN: Total points - 14

Starts at dorsum of big toe and ends in 6th intercostal space below the nipple.

XXIII

Liv-1 (320) DADUN

Location: Dorsum terminal phalanx big toe between interphalengeal joint and lateral corner of nail.

Indications: Jing-well point for acute abdominal emergencies/enuresis/col[illegible] Pruritis genital area.

Needling: 0.3 to 0.5 Tsun, slanting.

GOVERNING VESSELS MERIDIAN: Total points 28.

Starts in perineum between coccyx and anus, and terminated at junction of upper lip and gum.

XXIV

GV-20 (8) BAIHUI:

Location: Midline scalp where line connecting both ears crosses.

Peculiarity: It governs all Yang channels. Has powerful sedative and tranquillising effect. Vital point for ano-rectal disorders. Brings about co-ordination amongst channels.

Chinese - Baihui means meeting of 100 points

Srilenka- "Adhipathi" or Governor

Indications: Headache/Vertigo/Insomnia/Piles/Memory loss/coordination of other points.

Needling: 0.3 Tsun slanting posteriorly.

XXV GV- 26 (2) RENZHONG

Location: Midline sternum at level of 4th intercostal space (Midway between the two nipples).

Peculairity: Specific point for lung tissue.

Indications: Asthma/cough/Chestpain/Hiccough/Lactational deficiency/acne vulgaris

Needling: 0.3 to 1 Tsun, slanting upwards.

EXTRA - ORDINARY POINTS - that which do not belong to any meridian

XXVI Ex-1 YINTANG:

Location: Centre of glabelle - midway between medial ends of eyebrows.

Indications: Frontal sinusitis/headache/migraine/Phinitis/Epistaxis/Epilepsy/vertigo.

Needling: 0.5 to 0.7 Tsun horizontally downwards.

XXVII Ex- 5 JIACHENG JIANG:

Location: 1 Tsun lateral to midline on prominence of chin - (over the mental foramen)

Indications: Trigeminal neuralgia/facial palsy/lower toothache/excessive salivation.

Needling: 0.3 to 0.5 Tsun, straight.

OTHER POINTS

a) FLOATING or AH-SHI POINTS

- become tender and are located around diseased parts. These are also effective stimulation points.

b) JING-WELL POINTS

- to be used in acute emergencies like shock/convulsions/Respiratory failure/ cardiac failure etc.

eg: YONGKUAN (KI)
RENZHONG (GV 26)

OTHER RELATED METHODS OF TREATMENT

1) Point injection therapy: - with aqua/drugs.
2) Embedding therapy:- with cat-gut
3) Moxibustion:- Moxa (dried powder of leaf of Artemisia vulgaris) used to stimulate with heat - Direct and Indirect.
4) Magneto therapy:- Using magnets of strengths varying from 50 Gauss to 5000 Gauss.
5) Homoeopuncture:- Using homoeopathic medication to dip acupuncture needles in.
6) Laser beam acupuncture:- using laser beam.
7) Electrical stimulation:-
8) Auriculo puncture/Foot puncture/Scalp puncture etc.
9) ACUPRESSURE (Japanese - SHIATSU)

- Use of fingers/thumb/heel of palm/heel at Accupuncture points.

Technique to be demonstrated

Duration of stimulation

Use of rice grains/other seeds for prolonged stimulation.

****

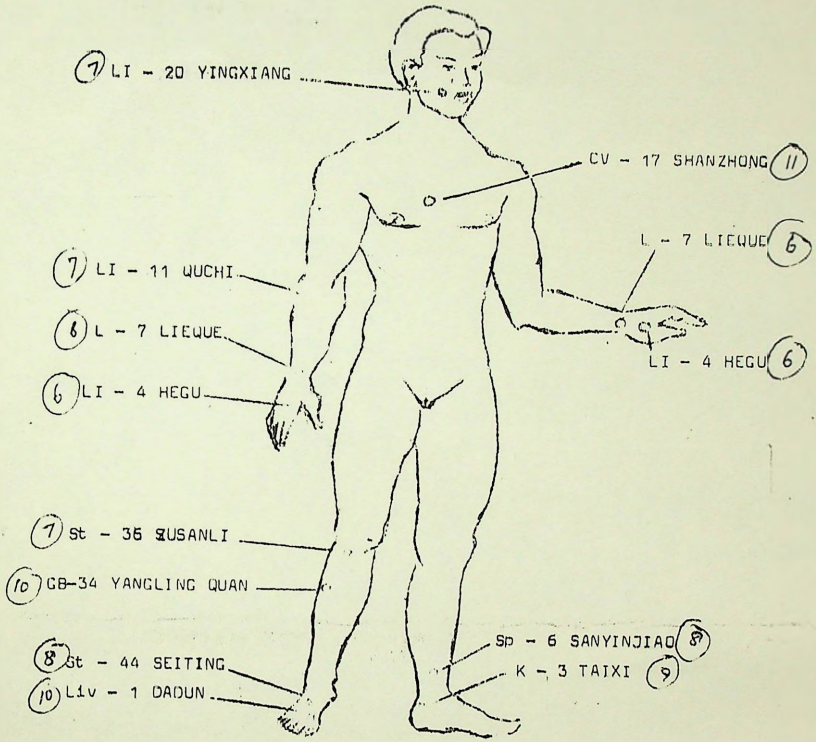
References: Dr. Franz Warren/Felix Mann/Lawrence and Mason/Anton Jaisuriya/ Agarwal/Bansal.

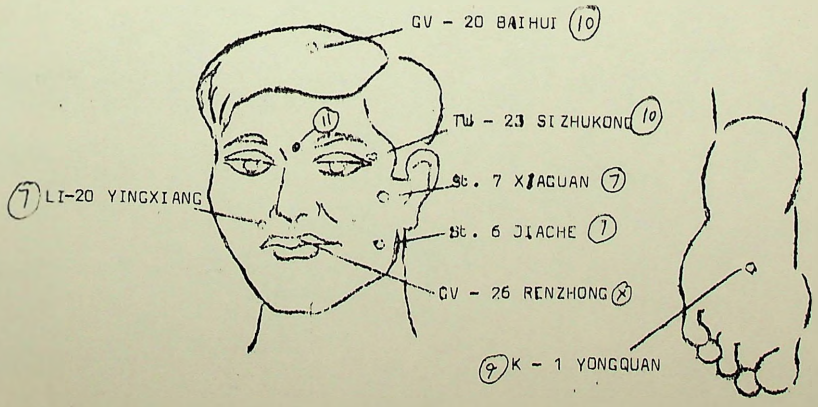
****

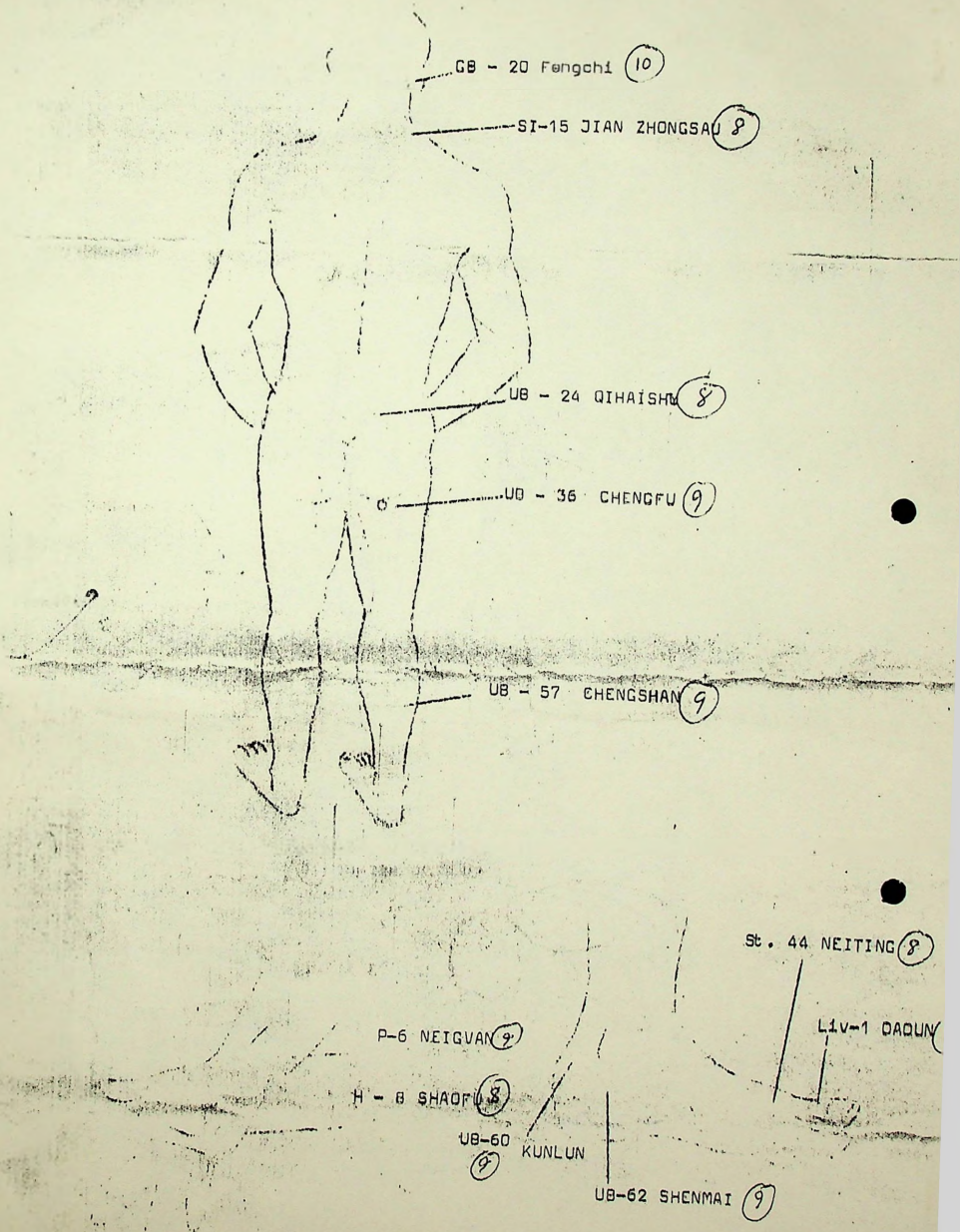
GB 21 (208) JIANJING

Loc: - Highest pt. of shoulder.
Midway betw. acromium / vertebra prominens.

Indications: Frozen shoulder / backache / stiff neck / cervical spondylosis / upper limb motor disorders / Paralysis / D.V.B.


(7) LI - 20 YINGXIANG
CV - 17 SHANZHONG (11)
L - 7 LIEQUE (6)
(7) LI - 11 QUCHI
(6) L - 7 LIEQUE
(6) LI - 4 HEGU
LI - 4 HEGU (6)
(7) St - 36 ZUSANLI
(10) GB-34 YANGLING QUAN
Sp - 6 SANYINJIAO (8)
(8) St - 44 SEITING
K - 3 TAIXI (9)
(10) Liv - 1 DADUN


GV - 20 BAIHUI (10)
TW - 23 SIZHUKONG (10)
St. 7 XIAGUAN (7)
St. 6 JIACHE (7)
(7) LI-20 YINGXIANG
CV - 26 RENZHONG (8)
(9) K - 1 YONGQUAN


GB - 20 Fengchi (10)
SI-15 JIAN ZHONGSAU (8)
UB - 24 QIHAISHU (8)
UB - 36 CHENGFU (9)
UB - 57 CHENGSHAN (9)
St. 44 NEITING (8)
P-6 NEIGVAN (9)
Liv-1 DAQUN
H - 8 SHAOFU (8)
UB-60 KUNLUN (9)
UB-62 SHENMAI (9)

Voluntary Health Association, Karnataka

(Registered Under Karnataka Societies Act 1960 No. 185 of 1974-75)

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Ulsoor, Bangalore-560 008.

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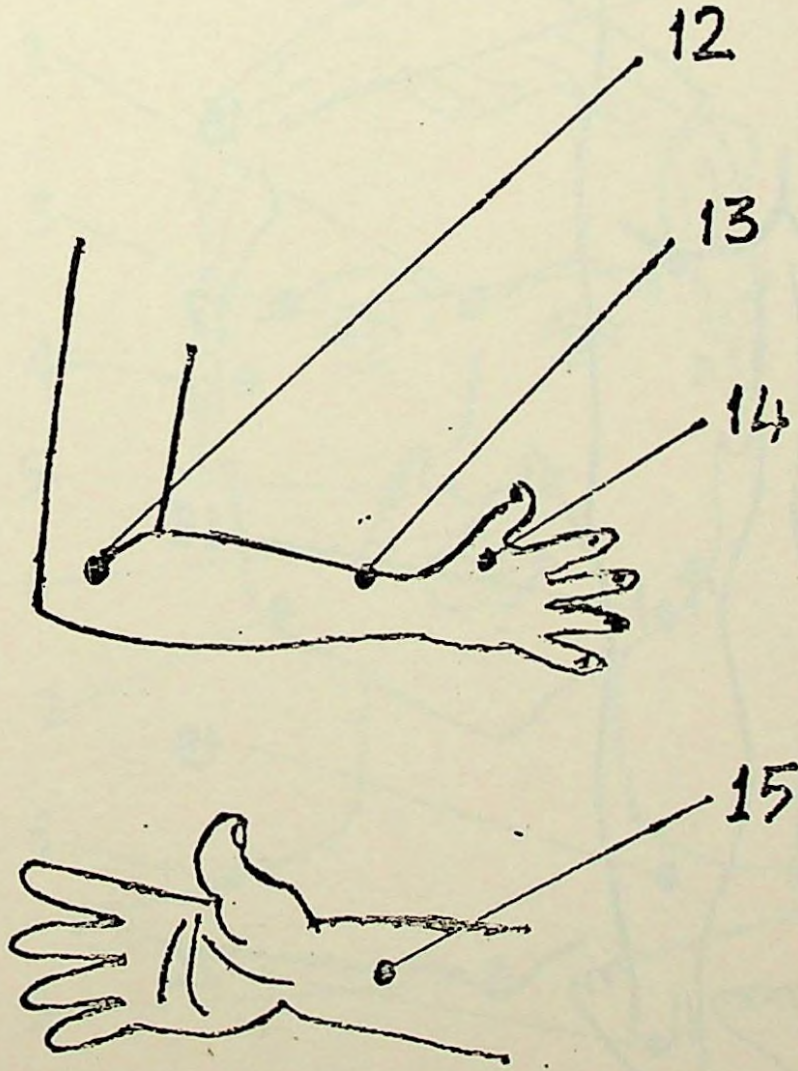
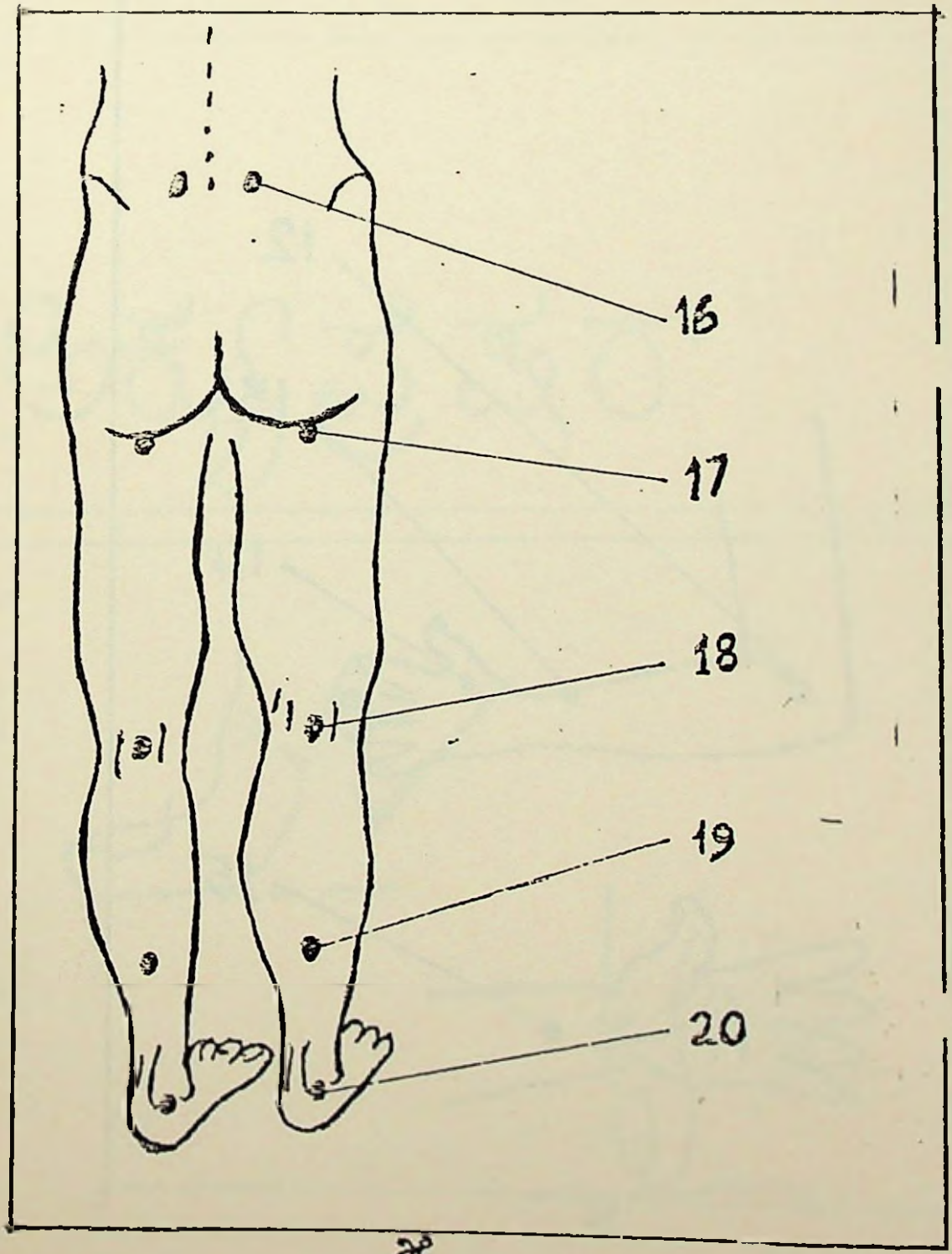


"HEALTH IS WEALTH"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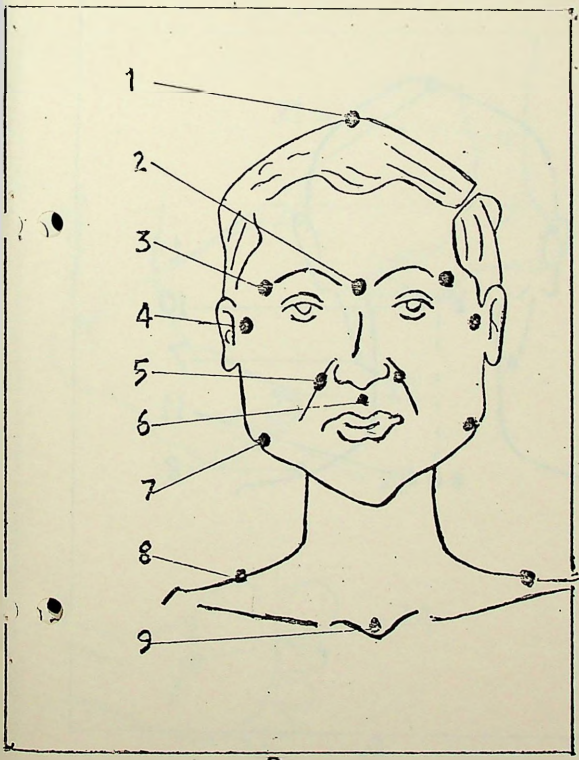
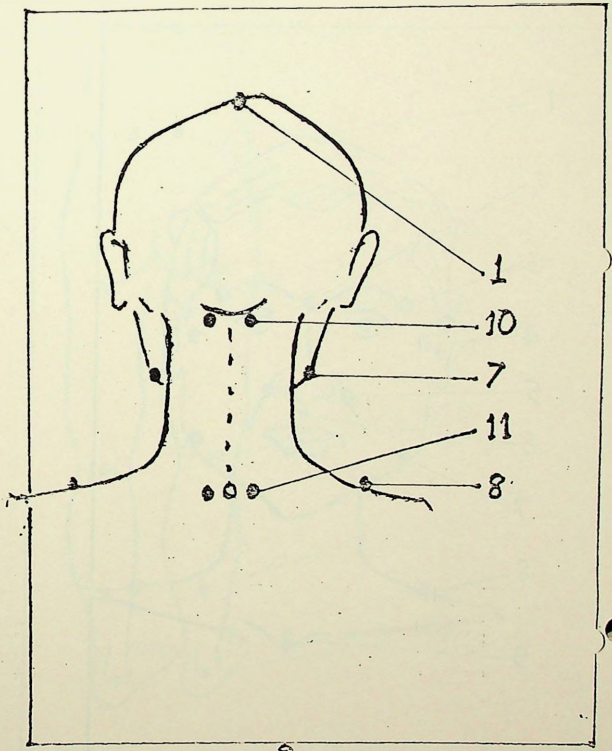
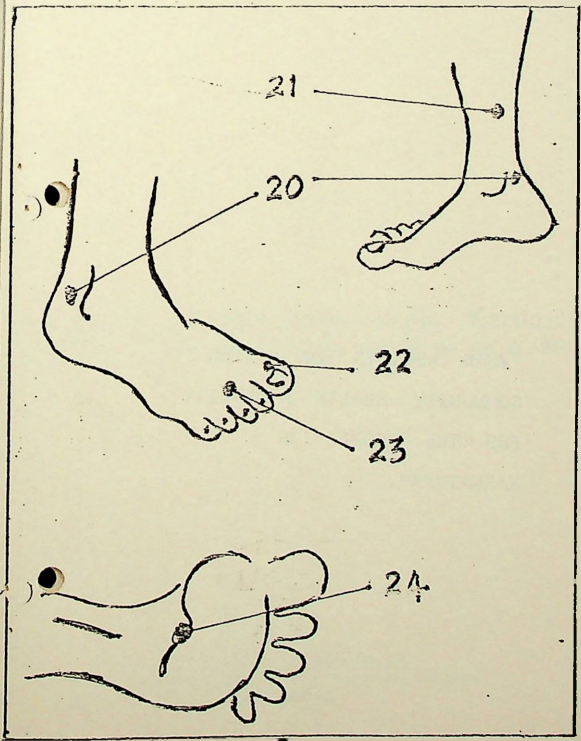


"HEALTH FOR ALL BY 2000 AD"



"OUR AIM IS HELP THEM TO HELP THEMSELVES"



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"VHAK ASSISTS IN MAKING COMMUNITY HEALTH A REALITY FOR THE PEOPLE OF KARNATAKA".

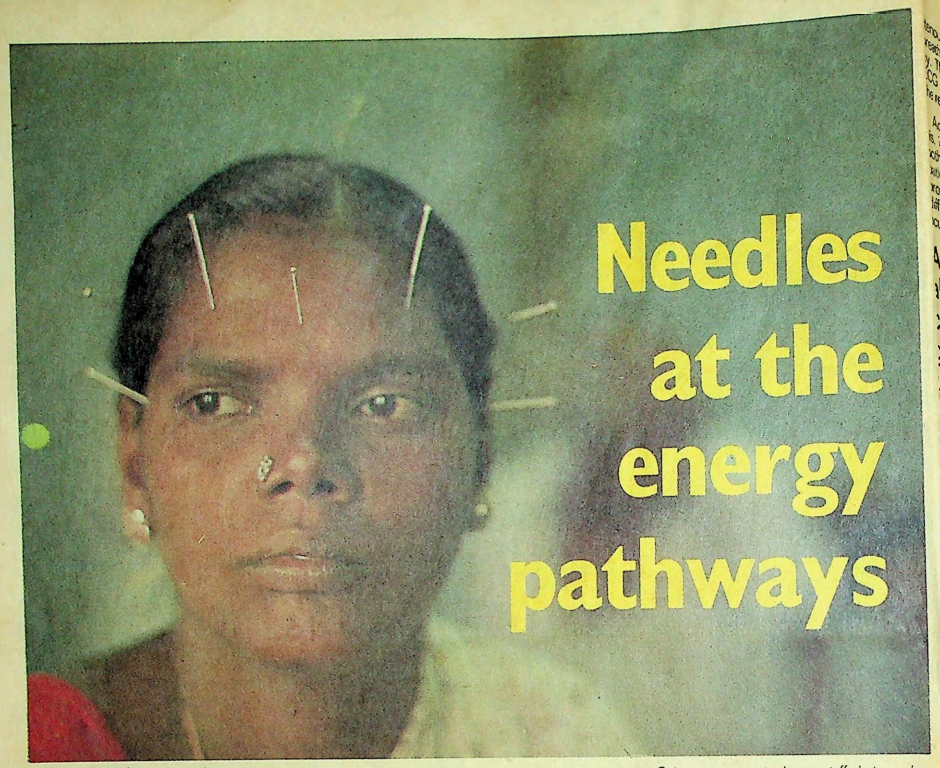
USE OF ACUPUNCTURE IN MODERN HEALTH CARE

Acupuncture therapy was first developed in China over 2000 years ago. Today, as a result of its widespread use in the People's Republic of China, its introduction to several countries in all parts of the world, and considerable research on its mechanisms and clinical application, acupuncture is a subject of great interest to health workers of different disciplines. WHO's involvement in the subject is through its general programme on traditional medicine. Thus a WHO Interregional Seminar on Acupuncture, Moxibustion and Acupuncture Anaesthesia was held in Beijing, People's Republic of China, from 6 to 8 June 1979, immediately following the first National Symposium on Acupuncture and Moxibustion and Acupuncture Anaesthesia (Beijing, 1-5 June 1979), at which some 600 scientific and clinical papers were presented by participants from 33 countries. The purpose of the Seminar was to discuss ways in which priorities and standards could be determined in the areas of acupuncture practice and training, clinical work, research and technology transfer. Some 15 persons from 12 countries took part in the Seminar and in a study tour of acupuncture treatment and research centres in the cities of Nanjing, Hangzhou and Shanghai.

Source : WHO Chronicle, Vol.34 No. 7/8, Page 294

THE HINDU
India's National Newspaper
Printed at Madras, Coimbatore, Bangalore, Hyderabad and Madurai

Needles at the energy pathways



Needles stuck to cure migraine.

Colour transparencies by our staff photographer

Acupuncture, as an alternative system for curing illness, has gained recognition at the hands of doctors. A course in which Chinese experts participated was held recently in Madras. A dozen medical practitioners including neurologists, surgeons and physicians were given training

DESPITE best efforts in the last 35 years and more, admittedly, the benefits of modern medicine are still to reach a sizeable section of the population, particularly in rural areas.

To make health delivery widespread, States, such as Tamil Nadu, included in their programmes the various systems of Indian medicine considering their efficacy and the cost benefit. The curative values of decoctions and juices of medicinal plants and herbs have gained much appreciation, yet they could not be carried extensively as experts in the ancient systems are not numerous. Also, much of the old valuable literature have been lost over the years and what remains are still to be studied in depth and the method given a sound scientific basis, evaluating the effects and clearing all doubts.

In the search for an alternative medicine, acupuncture, the traditional Chinese method of relieving pain and treating diseases, has fascinated several Indian doctors. Significant in this context is the recently concluded three-month course at the Voluntary Health Services Medical Centre, Madras. A dozen modern medical practitioners including neurologists, physicians, surgeons, anaesthetists and venereologist were given training by a team of experts from Beijing in the art of treating diseases by inserting needles into various parts of the body.

Following good response to the course, Mrs. Uma Narayanan of Chatnath Trust, which sponsored the visit of the Chinese team, says that an acupuncture centre will be set up at the VHS by the Trust. The Centre will be provided with facilities for both therapy and research.

In the traditional Chinese view, acupuncture is based on manipulation of the energy flow within the body through stimulation of meridians, or "energy pathways" to correct energy imbalances, which are regarded by acupuncturists as the root of illness. The points selected for insertion of needles are decided according to diagnosis and the nature of the disease. The needles, made of fine stainless steel with copper handles, vary from half inch to eight inches in size and after insertion they are left in position there for several minutes; in some cases for more than 30 minutes. And the treatment is spread over 15 to 20 sittings. In acute cases the needles are retained even for an hour or more. In the treatment, the acupuncturist relies on some 360 points of which the ears alone are stated to harbour some 60 points, scarcely millimetres apart.

According to Madam Zhou, who imparted the training at VHS, acupuncture is now used in conjunction with modern medicine and its validity tested against laboratory results. This is the first time ture and moxibustion to treat 43 diseases in all the countries.

Prof. Xingnong, who has over 50 years of experience in traditional Chinese medicine, says that acupuncture could play the role of drugs and antibiotics, especially for anti-inflammation. It is now used in combination with surgery, for instance, to treat acute abdominal pain and appendicitis.

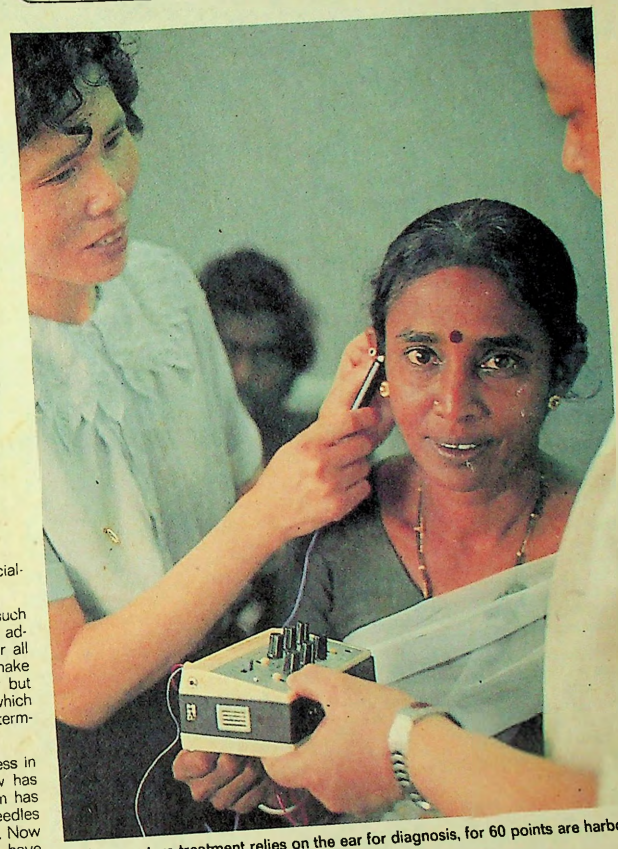
A recent analysis of the effectiveness of acupuncture on 871 persons with coronary cardiac diseases shows that acupuncture can relieve and improve tachycardia, fullness in the chest, short breath, palpitation and heart insufficiency. The improvement also appeared in ECG and the longer the treatment, better the results.

Acupuncture, according to the analysis, improved the left cardiac function of patients with acute and old myocardial infarction patients. In rheumatic heart disease, it improved clinical symptoms and signs to different degrees. And in hypertension, acupuncture brought down the diastolic and systolic blood pressure and especially the latter.

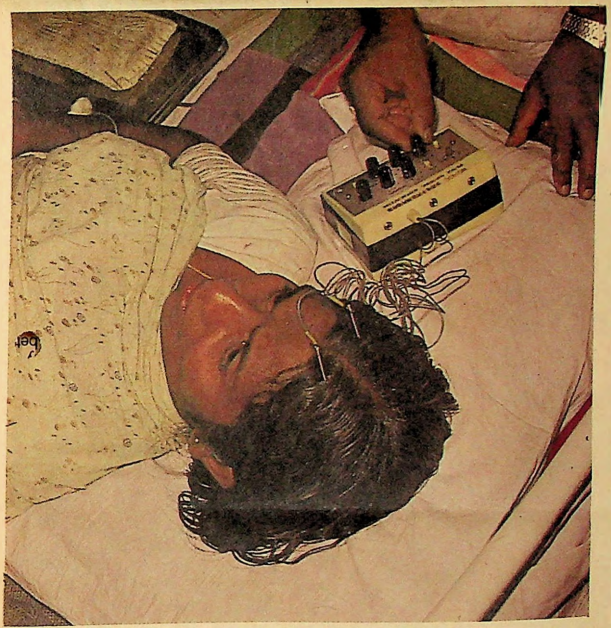
Can acupuncture cure diseases such as cancer of the lung? Madam Zhou admitted that it was not a panacea for all ailments. "Acupuncture does not make tall claims. We cannot cure cancer but we can relieve the pain of cancer, which is an important aspect particularly in terminal cancer."

In the light of tremendous progress in the field of modern medicine, how has acupuncture advanced? The system has come a long way from the use of needles made of stones, bone and bamboo. Now gadgets such as acupunctoscope have

Continued on next page



Acupuncture treatment relies on the ear for diagnosis, for 60 points are harboured here.



An acupunctoscope, a diagnostic equipment to find out the points of therapy.

"The effect of this therapy is amazing" said a lady librarian whose face was turned into a pin cushion with hair-thin needles inserted on her forehead. "Until a week ago, I cannot concentrate on my work even for 10 minutes, but thanks to these miraculous people, I now feel wonderful and the treatment has allowed me to read even for eight hours without any headache."

This woman, with a complaint of migraine for nearly six years, was one of over 200 persons benefited at the clinical practice sessions conducted by the Chinese team. Almost all the patients said that they noticed considerable improvement even in two or three sessions of therapy and felt greatly relieved of their ailments such as asthma, arthritis, back pain, sciatica and breathlessness. Although in some cases the reduction of pain was only marginal, the doctors considered the treatment response significant because these patients could find no remedy in other systems of medicine, including allopathy.

that the Beijing Academy of Traditional Medicine has conducted the certificate course on acupuncture outside China. And in the last ten years, the Centres at Nanjing, Shanghai and Beijing have trained over 1,000 doctors from 103 countries on acupuncture and moxibustion, another therapeutic method under which diseases are treated by application of heat of burning maxawool, a plant product, over the acupuncture points.

Prof. Cheng Xingnong, Vice-Director of the Beijing Institute, who was in Madras at the time of the inauguration of the course, said that acupuncture and moxibustion therapy could cure over 300 diseases. Of these, more than 100 could be treated without combining Chinese herbal medicine and western medicine or other therapy. These include infectious diseases, disorders of internal medicine, surgery, gynaecological, ENT, paediatric and dermotological problems. Acupuncture could also be applied for preventive purposes. The WHO had recommended the application of acupunc-

crush the crystalline waste deposits which have accumulated at the nerve endings, pulverizing them so that they can be carried away by the blood to points of elimination. If your thumb does not remain constant at the point of pressure, but slips or glides even slightly, you miss the reflex point and pull the skin over the deposits instead of crushing them. Even if deposits are partly broken up in a gliding motion, it is a cardinal principle of reflex compression massage that the pressure on a given point is the stimulus initiating the impulse which travels through the zone and reaches each organ in the zone. This results in the completion of the reflex response. Thus, the points must be precisely pinpointed. So please remember: the pressure point is *not* the gliding point.

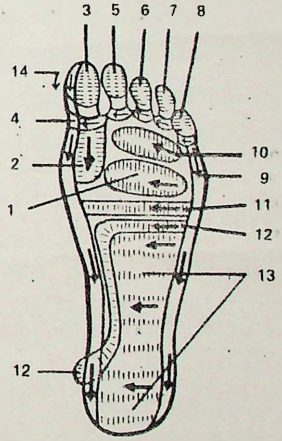


Fig. 5: Foot Diagram (Sequence of areas to work on)
(Same sequence applies on right foot)

Pressure is to be maintained for only an instant, and is then released by straightening the thumb. The thumb is again placed in the flat position on the skin's surface for another moment, after which it starts to bend again to get on another pressure point. This movement of alternately bending and straightening the thumb moves it forward in tiny steps, making contact with

REFLEXOLOGY - Anna Kaye & Don. C. Matchan 1978.
Thorsons Publishers Ltd.
Wellingborough, Northamptonshire

Dr. Yaichiro Hirasawa, professor and researcher at Shizouka Univ. in Japan, has confirmed the almost uncanny relationship between our feet and the rest of the body. Dr. Hirasawa has invented a "pedoscope" which, when an individual stands on the machine, makes a print indicating where the centre of gravity is in that person's body. If the c. is "off", it indicates that there may be trouble in corresponding areas.

According to "National Enquirer" (Oct 7, 1974) the method is being explored and used in the Texas Medical Centre, Houston by Dr. Makoto Igarashi, Director of the centre's college of Medicine.

Dr. Hirasawa reports a 90% rate of success using foot characteristics as a diagnostic tool. The study of some 75,000 patients reveals that the toes are particularly helpful as a guide in detecting illnesses and disease.

- Painful and stiff big toe signifies Liver trouble.
- ——— do ——— 2nd/3rd toe —do— Stomach problem.
- ——— do ——— 4th toe —do— Spleen " .
- ——— do ——— 5th toe —do— bladder " .

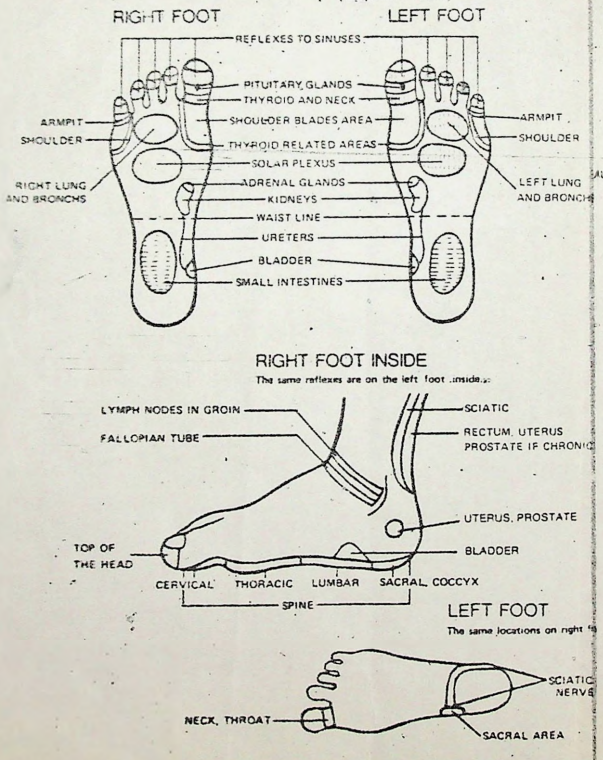
If one of the toes does not make full contact ∂ surface] Digestive / Respiratory problems

If all small toes considerably shorter than big toe → emotional instability.

Slippers which inhibit use of heels can cause headaches.

LOCATION OF REFLEXES

(approximate)



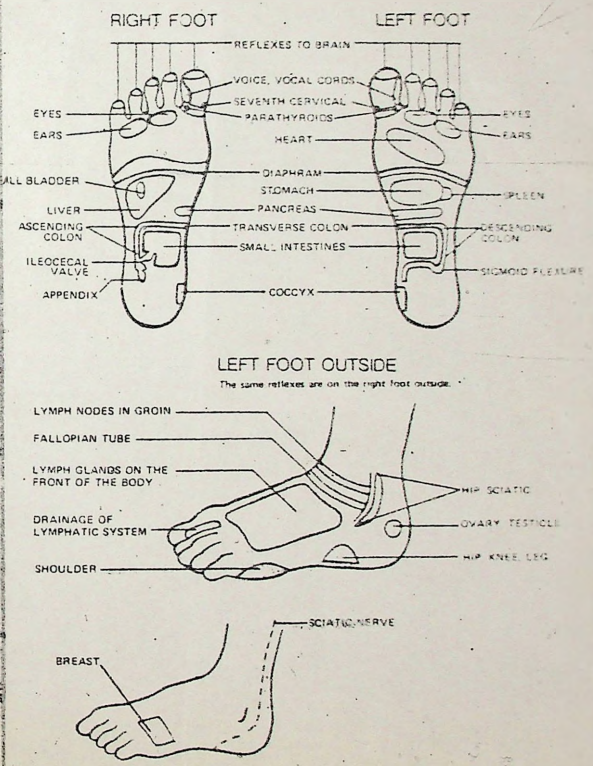


Fig. 15: Approximate Location of Reflexes

DR. A Acupressore / puncture

DRA · P001

Kaye, Anna ; Matchan. Don C. (1978)
Reflexology (diagrams form)
(>

Annotation → Diagrams of various locations of reflexes. and handwritten notes on. recent research on reflexology

P002

Staff reporter
Needles at the energy pathways.
The Hindu. Sunday July 14. 1985
→ A report on the practise of acupuncture concentrating on the success and about the failures, the article however concludes on a cautious note, claiming that acupuncture has only a temporary relief, and should be used c care.

P003

→
→ Use of Acupuncture in modern Health care
→ WHO Chronicle, vol 34. 7/8
- a brief report on WHO's similative on Acupuncture

P004

Tekur, Shrish Prasad
Hand book of Acupressure points
VHA · Karnataka.
- A simple clear plotting of points to be used c explanation of various points

P005

Tekur, Shridi Prasad
Acupuncture I/II/III/IV/V
Personal comm. (CHC)
→ Discussion of Acupuncture under following headings. Theories of Acupuncture, Methods of Diagnosis, Uses of needles technique; Brief description of various meridians.

P006

Tekur, Shridi Prasad
Acupressure
Personal comm. (CHC)

→ Discussion (general) of Acupressure under heading of Introduction, History, How Acupressure works, Identification of Acupressure points / methods, Individual Acupuncture points.

P007

→ ?
→ Reflex Zones (Charts)
→ Institute of Naturopathy & Yogic Sciences.
- Interesting, detailed descriptions & representation of various leg & facial reflex points!

DRA - 14.

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pune 411030

15 November 1996

To SHODHINI Collective Members & Friends:

Exploring *Marma Chikitsa* with Groups of Women Healers

Two gatherings of groups of local women healers associated with SHODHINI are planned in the near future, at AIKYA near Bangalore (21-23 November) and MASUM near Pune (7-9 January).

I was thinking about what might be offered as part of the programme for these women healers from diverse regions and representing five or six different language groups. Of course, there will be sharing and celebrating - and that deserves justice from the organisers and supporters like us in terms of facilitating simultaneous translation, good quality photo-documentation, etc.

However, it struck me as I was thinking, since these groups have in common the experience of extended exposure to feminist self-help work, wouldn't it be possible for them all together to take hold of a new skill and develop it in the context of women's healthwork? But, what skill? It then struck me that *Marma chikitsa* would be just such a 'new-old' skill. I've spoken briefly with a few others since then about it - Manisha, Sabala, Renu, Sarojini, Philomena. I'm sorry not to have prepared this note earlier to share with you so you could think about it before the first Gathering.

WHAT IS THE IDEA? Well, *Marma* is just such an area of skill, that it is likely not only to appeal to women healers, but to be quite useful to them, too. My guess is that quite a number of them - if not all - will already have conscious or unconcious knowledge of *Marma*. From my own experience in M.P. and other rural areas, I know that people use some of the *Marma* points in both human and animal healing work. At the first Women Healers' Gathering, this whole unique 'group of groups' could have the opportunity to pool prior traditional knowledge of *Marma* and to learn and think about what the indigenous medical systems teach about *Marma*.

Since there is to be nearly a six-week gap between the two Gatherings, the groups would then have time to go back and collect more knowledge and feedback from their communities. Hence, at the second Gathering in January, the groups could all put their synthesis into draft form for a *Marma Pustika* (small handbook with versions in each of the five/six languages). Of course, some members of the SHODHINI Collective & Friends would be needed for co-ordination & editing.

But, some of you will be asking, WHAT IS *MARMA*? So I've prepared a note on the topic with two supporting tables, attached herewith. Please try to give it and the accompanying Tables some solid attention and thought. It will certainly require some demystifying. You may be able to add to this effort from your own up-to-now unknown knowledge recesses!

Let's not forget to work out the extra expense factors and financing arrangement.

Hoping you will become as excited and intrigued about this exploration as I am, and as we think the women healers will be,

Yours,

Mira

Copies to:

SHODHINI Collective Members: Anu, Bharati, Philo, Renu, Rina, Sarojini, Smita, Uma

MASUM (& IWID) People: Kranti, Manisha, Sabala, Vrunda (*plus* Chandra, Hema, Sunita)

OTHER FRIENDS (in touch with friends... friends... friends...) for Support & Future Involvement: Abha, Anita, Anuradha, Arti, Aruna, Asha, Ashvini, Beena, Celine, Deepti, Devaki, Gabrielle, Gauri, Gayatri, Hema, Ilina, Imrana, Indu, Janet, Jaya, Jo, Kalpana, Kameshwari, Karen, Kishwar, Kusum, Lakshmi, Lorry, Madhulika, Malika, Marie, Mira, Nagmani, Nancy, Neela, Neelam, Nirmala, Nitya, Pilar, Pramila, Razia, Rohini, Sadhna, Sathya, Shashi, Shubhada, Silvy, Sulabha, Swati, Swatija, Taranjit, Teji, Thelma, Tripura, Tultul, Ujwala, Usha, Vanaja, Varsha, Vasantha, Veena, Vidya .....

RM
20/11

Marma Chikitsa (or Varma Kalai)

(a note by Mira Sadgopal - 15/11/'96)

The *'marmas'* are vital pressure points in the body. Knowledge about *Marma Chikitsa* (healing by *marma*) is codified in ISM (formal 'indigenous systems of medicine'). It is also carried on through the local health traditions without written record. *Marma* is useful in bonesetting and animal healing in particular, but also in relieving ordinary or acute human problems like abdominal pain, headache, menstrual cramping and so on. *Marma* knowledge may be used while massaging children and adults.

Use of *Marma* points arose under both Ayurvedic and Siddha systems. They are referred to in the *Atharva Veda*. The ancient surgeon Sushruta described them in detail. To understand anatomy from an indigenous perspective, study of *Marma* is essential. The points demarcate zones of energy, and their stimulation can release or regulate the flow of energy to various body organs. Knowledge of *Marma* was applied in war, for killing an enemy or protecting oneself, and it became essential in the training of surgeons, as injury to certain points can cause death or disability. It was later developed as massage to stimulate internal organs.

Marma Chikitsa is similar to the Chinese system of acupressure & acupuncture. The relative size and location of *Marma* points are measured in finger units *(anguli)* relative to each person, just as in the Chinese system. Some feel that the science may have originated in India.

There are 107 *Marma* locations that Sushruta described, classified according to

- the areas of the body where they occur, or
- the tissue of which they are composed, or
- the effect if a particular point is injured.

The 122 *varma* points *(Siddha)* are classified into six groups according to whether they are influenced by injury, touch, blow, massage, sight or licking!

Varma points are used for inducing anaesthesia by traditional bone-setters in Dt. Tirunelveli, Tamilnadu.

I have prepared two Tables, adapting the information given in Chapter 6 *(Marma - Vital Anatomical Points)* of AYURVEDA, THE ORIENTAL HEALING SCIENCE (1991) by Vaidyas Subhash Ranade & M.H. Paranjape, teachers at Ashtang Ayurvedic Medical College in Pune.

TABLE 1 details the ways in which *Marma* points are classified according to Ayurveda.

TABLE 2 gives details about individual *Marma* points listed in Body Region-wise fashion.

After studying these Tables, some question would naturally occur to us - the following questions occurred to me.

SOME QUESTIONS ARISING WITH REGARD TO *MARMA* & WOMEN HEALERS:

Description of a number of points belies the bias towards male anatomy and function. Likewise, description of other points relating to women's bodies and physiology is absent. Does this information exist?

There are other gaps in the information as it stands (15/11/96). Where is it to be found -

in Ayurvedic texts in Sanskrit, Marathi, Hindi and & other regional languages?

in Siddha texts in Tamil, Malayalam, Kanada? Tibetan?

in the local and oral folk traditions of diverse parts of our country?

The folk traditions contain numerous *Marma*-influenced practices, like

- tying something around various parts of the body to relieve pain in that or other part,
- pressing particular spots of the body to obtain specific effects which may be remote,
- vacuum cupping, branding, applying irritants at particular points (easily interpreted as 'counter-irritation' by allopathic doctors), etc.

How much of this is already on record (and where)? How much is there to be recorded?

In what way could this subject be taken up and handled by Women Healers, as in SHODHINI?

TABLE 1: Ways of Classifying *Marma* Points

By Region of the Body (107?)	Upper Limbs *(Names with asterisk* are in Lower Limbs, too)*	22	*Talhridaya*, Kshipra*, Kurcha*, Kurchashira*, Manibandha, Indrabasti*, Kurpara, Ani*, Urvi*, Lohitaksha*, Kakshadhara*
	Lower Limbs	22	All * plus *Gulpha, Janu*
	Abdomen & Chest	12	*Vitapa, Guda, Basti, Nabhi, Hridaya, Stanamoola, Stanarohita, Apasthambha, Apalapa*
	Back & Buttocks	14	*Katikataruna, Kukundara, Nitamba, Parsvasandhi, Brihati, Amsaphalaka, Amsa*
	Head & Neck	37	*Mani, Neela, Sira Matrika, Krikatika, Vidhura, Phana, Apanga, Avarta, Shankha, Utkshepa, Staapani, Shringataka, Simanta, Adhipati*
By Structural Composition (108) *(Initials in Brackets are used in Table 2)*	Muscles (Mu)	11	*Talahridaya, Indrabasti, Guda*
	Blood Vessels (BV)	41	*Urvi, Lohitaksha, Hridaya, Stanamula, Apasthambha, Apalapa, Parsvasadhi, Brihati, Mani, Neela, Sira Matrika, Phana, Apanga, Sthapani, Shringataka*
	Ligaments, Tendons (LT)	27	*Kshipra, Kurcha, Kurchasira, Ani, Kakshadhara, Vitapa, Basti, Nabhi, Amsa, Vidhura, Utkshepa*
	Joints (Jo)	20	*Manibandha, Kurpara, Janu, Kukundara, Krikatika, Avarta, Simanta, Adhipati*
	Bones (Bo)	8	*Katika taruna, Amsaphalaka, Shankha*
By Effects if Injured (97?)	Sudden Death *(Sadyaha Pranahara)*	9	*Guda, Basti, Nabhi, Hridaya, Sira Matrika, Shankha, Shringatka, Adhipati*
	Slow Death *(Kalantara Pranahara)*	33	*Talhridaya, Kshipra, Indrabasti, Stanamoola, Stanarohita, Apasthambha, Apalapa, Katika taruna, Nitamba, Parsvasandhi, Brihati,*
	Death if Pierced *(Vishalyaghnakara)*	3	*Utkshepa* (if foreign body like arrow, bullet is removed...), *Sthapani*
	Painful *(Rujakara)*	8	*Kurcha* (with tremors), *Kurchasira, Manibandha, Gulpha*
	Disabling, Crippling *(Vikalatvakara)*	44	*Kurcha, Indrabasti* (anaemia), *Kurpara, Janu, Ani* (with swelling), *Urvi* (with wasting of thigh muscles, anaemia), *Lohitaksha* (with paralysis; from blood loss), *Kakshadhara, Vitapa* (with impotence), *Kukundara, Amsaphalaka* (with wasting of shoulder muscles), *Amsa* (with frozen shoulder), *Mani, Neela, Krikatika, Vidhura* (deafness), *Phana* (loss of smell), *Apanga* (blindness), *Avarta* (blindness)

Compilation from Source: *Chapter 6: Marmas - Vital Anatomical Points*, AYURVEDA, THE ORIENTAL HEALING SCIENCE,Vds. Subhash Ranade & M.H. Paranjape, Pune, 1991, pp 81-90.

TABLE 2: *Marma* Points by Name and Body Region, with Locations, Size (in *Anguli* units), Healing Importance & Effects if Injured

Body Region	Sanskrit Name of the Point	Number	Meaning of Name	Location of Point	Size* (in *Anguli*)	Composition	Importance in Healing	Effect if Injured
Hands & Legs	*Talahridaya*	(4)	'heart of flat space'	at the centre of palm or sole	two	Mu	Stimulation of Lung	Slow Death
	Kshipra	(4)	'quick' (effects)	skin fold of thumb & index fingers, 1st & 2nd toes	one	LT	Stimulation of Heart	Slow Death
	Kurcha	(4)	'knot' (of tissues)	at root of thumb or big toe, 2 *Anguli* above *Kshipra*	one	LT	On sole: controls *alochaka pitta*	Disability & Pain with Tremors
	Kurchasira	(4)	'head of *kurcha*'	just below wrist joint; at centre of heel below *Gulpha*	one	LT		Pain
	Manibandha	(2)	'bracelet'	on wrist joint	one	Jo		Pain
QUESTION:	*Gulpha*	(2)	???	on ankle joint	two	Jo		Pain
ARE POINTS ON BOTH BACK AND	*Indrabasti*	(4)	'Indra's bladder'	at mid-forearm, at mid-calf	one	Mu	Stimulat. of *Agni* (digestive fire) & Small Intestine	Anaemia & Slow Death
FRONT COUNTED	*Kurpara*	(2)		at elbow .... point?	one	Jo	Stimulation of Liver, Spleen	Disability
AS ONE OR TWO?	*Janu*	(2)	'knee'	on knee joint ... ?	one	Jo	Stimulation of Liver, Spleen	Disability
	Ani	(4)		arms, thigh - 3 *anguli* above *Kurpara* & *Janu*	one	LT		Disability & Swelling
	Urvi	(4)	(wide, broad?)	mid-upper arm & mid-thigh	one	BV	Stimulation of *Udakavaha Srotas*	Disability, wasting of thigh & Anaemia
	Lohitaksha	(4)	'red-eyed'	in middle of each arm-pit & groin	one	BV		Disability & paralysis
	Kakshadhara	(2)		on arm, 2 *anguli* above *Lohitaksha*	one	LT		Disability

(TABLE 2, continued, p.2)

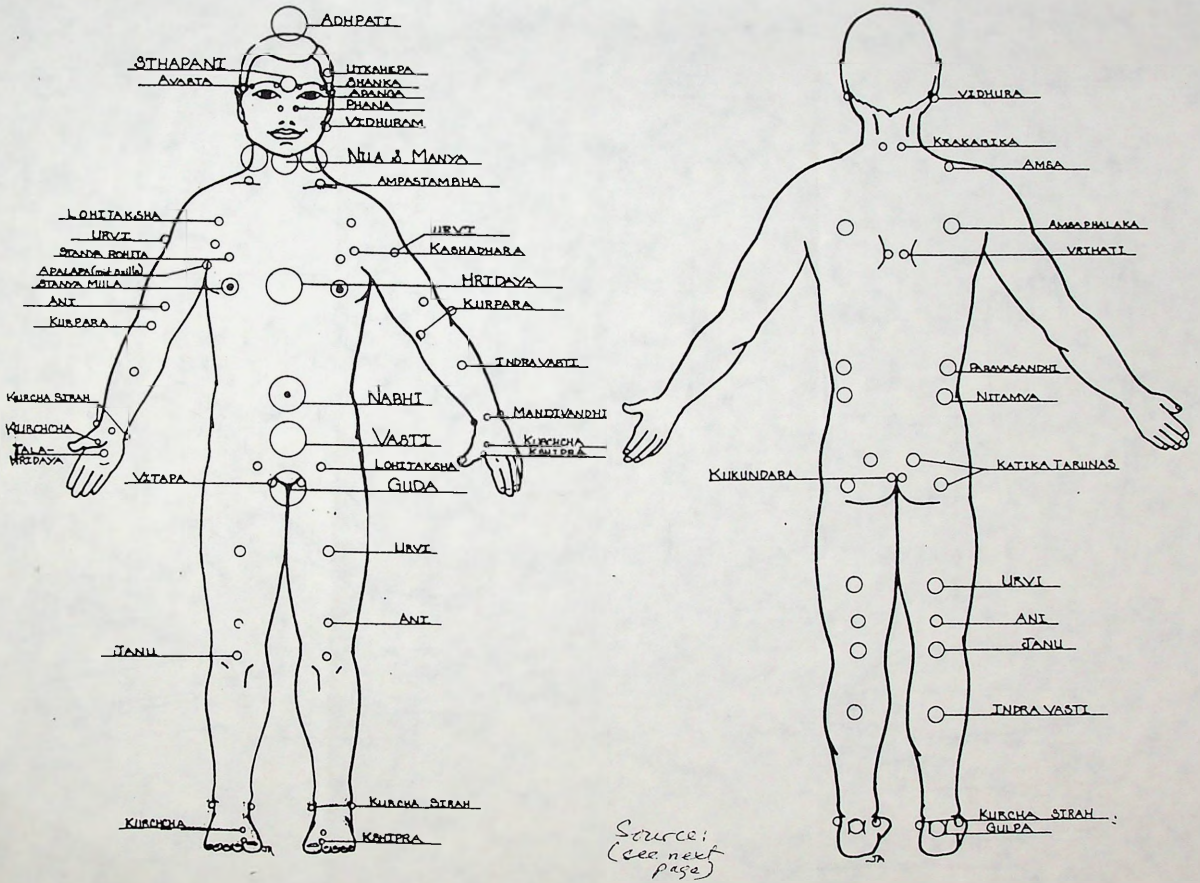
Perineum & Abdomen	*Vitapa*	(2)		2 *anguli* below *Lohitaksha*, at root of scrotum	one	LT		Disability & Impotence
	Guda	(1)		around the anus (~1st or *muladhara chakra*)	four	Mu	Stim. *1st Chakra:* sex-gen-urin. syst.	Sudden Death
	Basti	(1)		over the bladder, between pubic rim and umbilicus	four	LT	Controls *kapha*	Sudden Death
	Nabhi	(1)	'navel'	around umbilicus	four	LT	Contr. Sm.Intest. & *pachaka pitta*	Sudden Death
Chest	*Hridaya*	(1)	'heart'	middle of sternum	four	BV	Contr. of *sadhaka pitta* & *vyana vayu*	Sudden Death
	Stana mula	(2)	'root of breast'	around the nipples	two	BV		Slow Death
	Stana rohita	(2)		incline of breast, 2 *Anguli* above *Stanamula*	one	Mu		Slow Death
	Apa sthambha	(2)		below middle of collar bone	one	BV		Slow Death
	Apalapa	(2)		middle of arm-pit, outside *Sthanarohita*	one	BV		Slow Death
Back & Buttocks	*Katika taruna*	(2)		on buttocks, centre of hip	two	Bo	Control over fatty tissue	Slow Death
	Kukundara	(2)		at joint of buttocks... (Post. Superior Iliac Spine)	one	Jo	Control over *2nd Chakra*	Disability
	Nitamba	(2)		hip crest, 4 *anguli* above & lateral to *Kukundara*	two	Bo		Slow Death
	Parsvasandhi	(2)		below last rib, 2 *anguli* above *Nitamba*	two	BV		Slow Death
	Brihati	(2)		scapula tip , 2 *anguli* lateral to spine	one	BV	Control over *3rd Chakra*	Slow Death
	Amsaphalaka	(2)		crest of scapula bone, above *Brihati*	two	Bo	Control over *4th Chakra*	Disability & wasting of shoulder muscles
	Amsa	(2)		betw. shoulder & neck, 4 *anguli* above *Amsaphalaka*	one	LT	Control over *5th Chakra*	Disability & frozen shoulder

(TABLE 2, continued, p.3)

Neck	*Mani (plural: Manya)*	(2)	'bead' 'gem' (of necklace)		four	BV	Control over Blood	Disability
	Nila	(1)	'blue'	point of throat	four	BV		Disability
	Sira Matrika	(8)	'mother blood vessels'	side of neck... etc?	four ???	BV		Sudden Death
	Krikatika	(2)		side of vertebra, at joint of back & neck	one to two	Jo		Disability
Head	*Vidhura*	(2)		below & behind earlobe	one to two	LT		Disability (Deafness)
	Phana	(2)	'serpent's hood'	side of nose	1 - 2	BV		Disability (Loss of Smell)
	Apanga	(2)		outer corner of eye	1 - 2	BV		Disability (Blindness)
	Avarta	(2-6)		outer part of eye-brow; also inner, middle ?	1 - 2	Jo		Disability (Blindness)
	Shankha	(2)	'conch' shell	temple - between ear & *Apanga*	two	Bo	Control over Large Intestine	Sudden Death
	Utkshepa	(2)	'thrown upwards'	above *Shankha*	1 - 2	LT	Control over Large Intestine	Death if Foreign Body Removed
	Sthapani	(1)	'which gives support'	exactly between the eyebrows	1 - 2	BV	Control of Mind & Nerves (apply oil)	Death if Foreign Body Removed
	Shringataka	(4)		tips of nose, chin, soft palate & point between nose + upper lip	one	BV	Control of Nerves	Sudden Death
	Simanta	(5)	'summits'	on skull bone joints: brow, parietals, ant. & post. fontanelles, occiput (???)	???	Jo	Control of Nerves	Slow Death
	Adhipati	(1)	'overlord'	top of head, vertex	four	Jo	Control of Mind & Nerves	Sudden Death

THIS MATERIAL IS UNDER DEVELOPMENT FOR REFERENCE OF TRAINERS & HEALERS. There is contradiction among sources consulted regarding the size (in *anguli* units) and other aspects of *Marma* points. The primary source for this Table is *Chapter 6: Marmas - Vital Anatomical Points*, from the book AYURVEDA, THE ORIENTAL HEALING SCIENCE by Vaidyas Subhash Ranade and M.H. Paranjape, Pune, 1991, pages 81-90. **(15/11/'96)**

To question, suggest or discuss, kindly contact Mira Sadgopal (Phone: 0212 - 470314; 3rd Floor, Renuprakash A, 817 Sadashiv Peth, Pune 411030.



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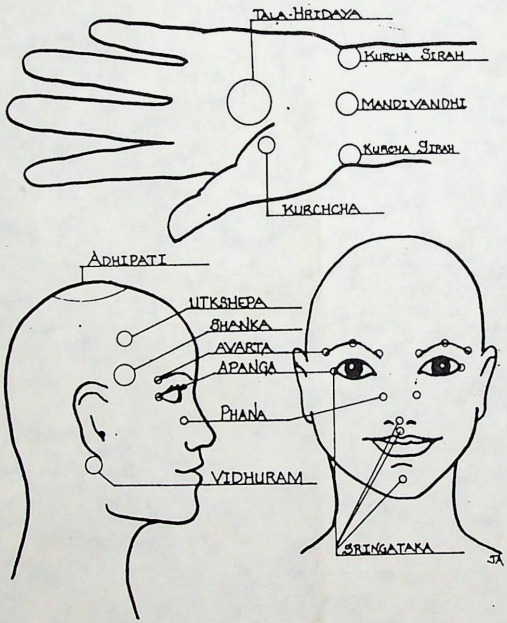

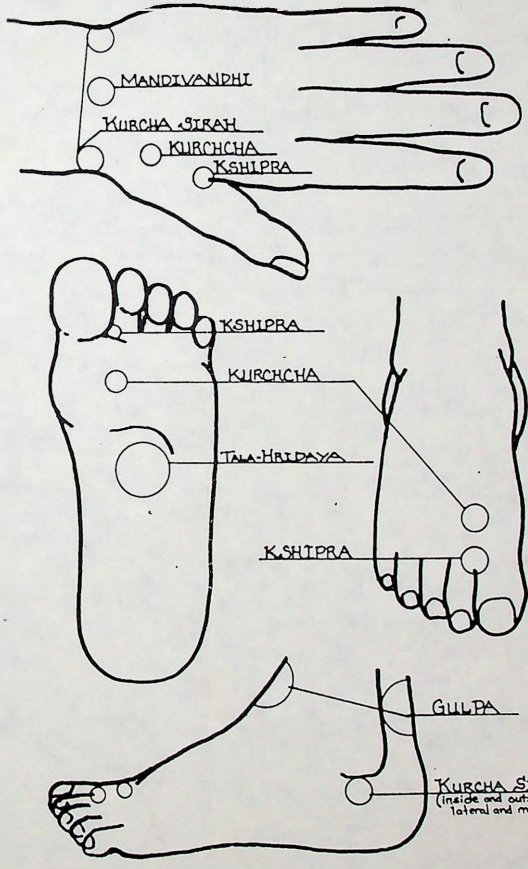

Source: Ch. 6: Marmas, in book
AYURVEDA, THE ORIENTAL HEALING SCIENCE
by Vds Subhash Ranade & MH. Paranjape, 1991.