

TUBERCULOSIS IN THE AYURVEDIC SYSTEM OF MEDICINEDHRUV MANKAD

The term 'allopathy' has been used for the sake of descriptive ease as an equivalent to Modern Medicine, more precisely the system of medicine taught in the M.B.B.S. Course. This is despite the fact that the equivalence is not accurate.

Tuberculosis has been with humankind and has been known to it as a dreadful disease since ancient times. Over a period of several centuries, the understanding of this disease has evolved differently under different cultures. And as a necessary consequence, we find that the disease is looked at differently by various non-allopathic systems.

An attempt is made here to briefly present how Ayurveda, one of the two major non-allopathic systems-the other being homeopathy-extant in India regard tuberculosis: its aetiopathogenesis, treatment and prognosis.

TUBERCULOSIS IN THE BRUHATTRAYI OF AYURVEDA:

Bruhattrayi (the three major texts) consists of the three major original textual sources of Ayurveda. They are Charakasamhita (c.700-600 B.C.), Sushruta Samhita (c 100 AD) Ashtangahriday Samgraha (c 400 - 500 AD). These three texts together describe the aetiopathogenesis, clinical features, diagnosis and medical (mainly Charakasamhita) as well as surgical treatments (Sushrutasamhita) of diseases.

In Ayurvedic texts only pulmonary tuberculosis is described as a separate disease and is known to them as Rajyakshama (Raj=King; Yakshama=Wasting disease). It is so named because, according to a myth it first affected Chandrama, the King of Constellations.

HISTORICAL BACKGROUND

Rajyakshama finds its first mention in Rigveda which describes how a physician treated a patient of Yakshama with mantras? But its more 'rational' history dates from Atharvaveda in which it is described under the section of fevers (Atharvaveda 5/5/22-134).

AETIOLOGY:

According to Ayurveda, diseases are caused as a result of several factors viz., genetic, congenital, constitutional, environmental, regional, occupational, sex, diet and so on. But the most important factors are those related to the constitution of a person's body. A human body is deemed

to have been constituted by seven tissues (saptadhatus - blood, muscle, fat, nerve tissue, semen, fibres and ojas-energy) each of which in turn, is formed as a result of the combinations of two or more of the five basic elements (pancha mahabhoots, air, water, space, earth and fire). The tissues carry in various proportion physiological qualities of tridoshas (kapha, Pitta, Vayu) each of which again comprise of a combination of the qualities of two or more panchamahabhoots.

In a healthy state of body, the saptadhatus, panchamahabhoots and the tridoshas are in a state of equilibrium both quantitatively and qualitatively. Any derangement of this equilibrium causes a disease state.

According to Ayurveda, tuberculosis is caused by an excessive accumulation of all the three doshas as a result of one of the following causative factors:-

- (a) Excessive strain beyond one's physical capacity (sahasik)
- (b) Suppression of natural urges like, thirst, hunger, micturition, defaecation, sexual - urge etc. (Vegavidharanaj)
- (c) Emaciation of tissues following injury etc. (Kshayaj)
- (d) Intake of food etc. which is unsuitable to one's constitution (Vishashanaj).

PATHOGENESIS:

Any of the above factors leads to irregularity in one's digestive power. By digestive power, it is probably meant what in modern terms could be called the process of metabolism as Ayurveda talks of both digestion of food (aharagni) and that of tissues (dhatragni), (Vishamagni). As a result, metabolism (Digestion and assimilation of food as well as tissue metabolism) suffers. This in turn ends up in accumulation of kapha. Kapha vitiates body channels thought to be carrying vital body - fluids other than blood (Srotodushti) and result in destruction of tissues like blood (Raktadidhatukshaya) and loss of tissue metabolic power (dhatvagnikshay). This causes imbalance in the constitution of ~~the~~ body tissues and accumulation of waste products (malas) in the body causing in turn accumulation of all the three doshas viz. Kapha, Vata, Pitta..

SYMPTOMATOLOGY

The disease caused by each of the causative factors outlined above manifests as different symptoms. Out of these, five symptoms are common to all the aetiological types of Rajyakshama. They are: cough with expectoration, loss of appetite, fever, headache and backache. Others like change in voice (in a, b, d. above), weakness of voice (in c.) pain in the throat (in b), feeling of discomfort in throat (in a), or hemoptysis (ind), hot sensation around throat (in c, d) are the differentiating symptoms. Out of these change in voice, backache, are caused by accumulation of vata; fever, hot sensation around throat and hemoptysis are caused by accumulation of pitta; and headache, cough with expectoration, loss of appetite and loss of voice are caused by Kapha dosha.

The patient spits out a thick, sticky, sour smelling, yellow, green or white sputum. The patient may spit blood too, as a result of bursting of blood vessels.

TREATMENT

Since, according to Ayurveda, tuberculosis is caused by accumulation of all the three doshas, the physician should treat it according to the relative strengths of the doshas.

The treatment consists of diet (pathya), fomentation (swedan), local application (alepan) and drugs (oushadha).

(a) DIET: Several strengthening diets are prescribed for a patient of tuberculosis.

1. Soup of partridge, quail or chicken meat cooked in ghee to be taken with rock salt, lemon juice and black pepper.

2. Soup of mutton cooked in ghee, with pepper, barley or horse gram, dried ginger powder (soonth) and seeds of pomegranate to be eaten with Amla.

(Charaksamhita Chikitsa
Sthana 67 - 68.)

b) Fomentation:

This is prescribed in order to relieve back ache and pain in the chest.

1. A poultice of barley, horsegram, kidney bean flour kneaded with hot milk should be applied to head, chest and back.

(Ch. sam - Chikitsasthan 71)

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2. A poultice of jivanti, aniseed, liquorice, root, vidarikand, meat of wild animals or animals living in water cooked in ghee, nerve and fibrous tissue should be applied to the site of pain (Ch.Sam. Chikitsasthan 75-76)

(c) Local applications: This, too is prescribed for the relief of pain.

1. An ointment prepared from aniseed, liquorice, costus, tagar, red sandalwood in ghee should be rubbed at the site of pain (Ch.Sam. Chikitsa sthan - 77)

2. In case of fever, an application of Chandanadi Taila followed by a hot water bath is prescribed. Alternatively, sponging with liquorice root decoction or cow's milk is prescribed (Ch.Sam.Chikitsasthan 85-86)

Bleeding and mild purgation / laxation is also indicated.

d) DRUGS: As mentioned earlier, drugs to be prescribed for tuberculosis would depend upon the relative strength of the three doshas. However, some formulations are prescribed which treat various symptoms of the disease.

1. Change in voice: Inhalation of a powder of variarmool, and shalaparni or ghee medicated with vidarikand, liquorice and rock salt is indicated to relieve this symptom. (Ch.Sam. Chikitsasthan 90)

2. Cough with expectoration (kasa), breathlessness (Shwasa) and chestpain.

A medicated ghee containing dashmool or cow's milk and meat juice is prescribed to be taken internally for cough and breathlessness while a paste made of variarmool is indicated to be applied at the site of chest pain (Ch. Sam Chikitsasthan 93)

A linctus made of long pepper honey, sugar ghee in a paste of dates and raisins should be given to a patient suffering from cough and breathlessness.

Another drug prescribed for these symptoms is a linctus called Yakshmanashakleh: (i) dates, long pepper, raisins bark of myrobalan, Kakdashringi, Durlabha (ii) Triphala

(Amla, Behada, Harada) long pepper, Nagarmotha, Water Chestnut, gur and sugar (iii) Kshir Kakoli, Kachur and gur., any of these powders taken with honey and ghee cures cough with expectoration, breathlessness, change in voice and chest pain (Ch.Sam Chikitsasthan 100-102)

Another formulation prescribed is sitopaladi churna containing sugar - 16 parts, vamshalochana 8 parts, long pepper 8 parts, small cardamom 2 parts and cinnamon 1 part to be taken with ghee and honey. This relieves the symptoms of breathlessness, cough, loss of appetite, loss of digestive power and backache. (Ch.Sam.Chikitsasthan 103 - 109).

Other drugs like Vasaghrita and Shatavari Ghrita are also prescribed (Ch.Sam Chikitsasthan 105).

SPREAD OF THE DISEASE:

According to Madhavnidanam, pulmonary disease is considered to be an infectious disease. It spreads through the breath, the saliva and sneeze of a patient. Also one can contract the disease by using patients utensils bed, scents etc.

Comments on the research on medicinal herbs used in the treatment of tuberculosis:

One thing that strikes any one going through the pages of medicinal and Aromatic Plants Abstract and CSIR bimonthly claiming to provide the latest information on the state of research in medicinal herbs, is the absence of any worthwhile research on the medicinal plants used in treatment of this disease. During the last four years (24 issues) there is only one research paper reported. It is on the relationship between rifampicin bioavailability and Adhatoda vasica.

Adhatoda vasica is perhaps the only herb that has been studied to any extent in its usefulness in the treatment of tuberculosis. It has been found to have an antitubercular effect in vivo. Essential oil of A vasica was found to inhibit all strains of M.tubercle in concentrations ranging from 2-20 Hg/cm in Youman's modified media (6, 7, 8). But the "drug was found to be useless in curing or preventing the progress of the disease either in experimental animals or in human beings. It only relieves irritable cough by its soothing action on the nerves and by liquafying the sputum which makes expectoration easier". This view is supported by others too. Other herbs found useful as expectorants in Tuberculosis are Allium sativum (garlic), Moringa oleifera (drumstick tree).

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(Nos. after the name of the work indicate the chapter, and the shloka in that order unless preceded by a P when it indicates page numbers)

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APPENDIX - I

SOME OF THE HERBS USED IN THE TREATMENT OF TUBERCULOSIS IN
BRUHATRAYIE

<u>English Name</u>	<u>Hindi Name</u>	<u>Botanical Name</u>
1. --	Jivanti	Leptadenia reticulata
2. Fennel seeds	Saunf	Foeniculum vulgare

<u>English Name</u>	<u>Hindi Name</u>	<u>Botanical Name</u>
3. Licquorice	Mulhatti (Jeshtimadh)	Glycyrrhiza glabra
4. --	Vidharikand	Ipomea Panniculata
5. Flag	Vach	Acorus Calamus Linn.
6. Costus	Kuth	Saassurea lappa C.B. Clarke.
7. Wax Flower	Tagar	Ervtania coronaria stapf.
8. Red Sandalwood	Raktachandan	Ptercarpus sanctalinus linn
9. ..	Variyarmool	Desmodium
10. ..	Salparni	Gangeticum D.C.
11. Long Pepper	Lindipipper	Piper Longum
12. Dates	Khajur	Phen dactylifera Linn.
13. ..	Munakka	Vitis Vinifera Linn
14. Myrobalan	Harida	Terminalia Chebula Retz.
15. ..	Kakadsingi	Pistacia integerrina Sav.
16. ..	Durlabha	Fegoina cretica linn
17. Emblic Myrobalan	Amla	Emblica officinalis belerica.
18. Chebulic myrobalan	Behada	Terminalla Roxb
19. ..	Nagarmotha	Cyperus rotundus
20. Waterchest nut	--	Trapa bispinosa Roxb.
22. ..	Kshirkakoli	Luvunga Scandens
23. Small Cardamom	Chhoti Ilaychi	Elettaria Cardomomum
24. Cinnamom	Dalchini	Cinnamomum Zeylanicum Blum
25. ..	Vasa	Adhatoda Vasica.

BACKGROUND PAPER V

TB in 'SIDDHA'

In Siddha, TB is referred to as "Chaya Rogam". Chaya is not a Tamil word originally. It is said to have a double origin: (i) Chayam which means 'phlegm' (sputum) in Sanskrit and Tamil and (ii) Chinitha which means 'to become weak'. It is, however, not the same as Kasa Noyee-- a pure Tamil phrase meaning 'phlegm formation' which in Siddha refers to milder sputum-producing diseases. This terminology causes some confusion since allopaths use TB and 'Kasa Noyee' as synonyms.

Chaya Rogam is due to a deficiency of food and blood constituents (? vitamins) such as 'minerals' and 'calcium'. The body is affected by this disease, since it has less "resisting power" (? immunity). Predisposing factors include certain diets (depends on individual constitution), environments (living in dark places, work in factories) and "customs" (habits - smoking, drinking). The affectation (? route of infection) is through diet or in the womb itself. Thus a child whose mother dies in giving birth to it may be affected. A child whose life in the womb is affected by deficiency may also be affected.

"Pathology": The Iral are affected--first there may be no outward sign or symptom but when the lungs are affected it is noticed as this is the place where Pranvaya (oxygen) goes to.

The three Iral are: Man Iral (Earth Iral), Norai Iral (Frothy Iral), Kal Iral (Stone Iral) or spleen, lung and liver. Again confusion occurs here because Iral is sometimes taken to mean 'liver' alone.

Treatment: Medicine forms one part and diet forms two parts of Siddha treatment. The 'Chaya Roga' patient cannot be simply given the same diet as the rest of the family.

Specific treatment is expensive and one of the ingredients is gold. The course of this treatment takes at least two Mandalams (2 x 48 days). After this the body still has to be strengthened and so the length of treatment depends on the condition of the body.

Non-specific and cheaper medicine will take 6 months at least. It will also be effective.

On diagnosis: There are 3 pulses to be felt in the wrist of these the PITTHA NADI is--

1. increased in intensity in Chaya Rogam. Pitham melts fat and the causes the weakness in TB;
2. The 'pitha nadi' "connects" with the SLETHAMAM NADI (? character of pulse);
3. Pulse rate is raised and corresponding increase in temperature and respiration rate may occur. Since pitha is strong after 2 pm the rise in temperature will be towards evening.

Other locations: Bone affectations causes the bone to be "bumpy" or "in and out" wherever blood "clots" eg., lymph nodes, bone, spleen, lungs, but also nerves abdomen etc., can be affected by Chaya Rogam.

---PRABHIR