

CLINICAL RESEARCH IN FILARIASIS

(A Profile By CCRH)

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Summary

This paper presents a report of treatment of 973 cases of Filariasis undertaken at three CCRH (Central Council for Research in Homoeopathy) institutes located in the states of Andhra Pradesh and Orissa during the period of four years (from 1st April 1985 to 31st March 1989) following a rigorous research protocol. Although a total of more than 3000 cases were registered yet data on 973 patients who have been under treatment for a definite period ranging from 4-5 years is presented to give a clear picture of the role of homoeopathy. The cases responded to the following drugs:

Name of the Drug	No. of Cases Prescribed	No. of Cases Found Effective
Rhus tox	463	339
Bryonia alba	230	169
Sulphur	200	133
Apis mellifica	187	125
Natrum muriaticum	108	88
Pulsatilla	61	42
Rhododendron	60	51
Silicea	50	31
Thuja	47	30

Lycopodium, *Mercurius solubilis*, *Calcarea carbonica*, *Medorrhinum*, *Hydrocotyle* and *Lachesis* have worked well whenever indicated by the symptoms of the patients.

CCRH after years of extensive work on Filariasis has confirmed the efficacy of *Rhus tox*, *Bryonia alba* and *Apis mellifica* in this disease and these three drugs have been recommended to be included in the National Control Programme of Filariasis.

Introduction

Filariasis has been identified by WHO as one among the six major tropical diseases. There are 120 million cases of filariasis in the world out of which 90 million cases are of lymphatic forms of filariasis and around 900 million

people are exposed to filarial infection. Filariasis is a disease produced by certain nematode worms. We are mainly concerned here with *Wuchereria bancrofti* and *Brugia malayi* which are prevalent in India.

W. Bancrofti is a parasite found in man. It has two biologically different forms. One periodic, with nocturnal periodicity of microfilariae transmitted by night biting mosquitoes i.e. *Culex fatigans* and this is the urban variety; the second subperiodical with diurnal periodicity of the microfilariae adopted by the day mosquitoes. The adult worms can survive from 10 to 18 years and mainly remain in lymphatics or lymph nodes of human being only. Human being is the definitive host whereas mosquito, the intermediate host. *B. malayi* is predominantly an infection of the rural population in contrast to the urban *W. bancrofti* and is transmitted by open swamp species of *Mansonia* and some *Anophelines*. It is a parasite of man and no natural infections have been found in animals. Bancroftian filariasis is a disease widely spread in tropics and sub-tropics. In India, it is distributed usually in coastal zones, though other states are not free from the disease.

In India usually both, Bancrofti and Malayan infections are found. Bancroftian filariasis is more towards southern India. Mixed infections are observed in Orissa. *W. bancrofti* mainly causes hydrocele and spermatic cord changes whereas *B. malayi* causes lymphangitis, lymphoedema and elephantiasis particularly in the legs and virtually spares the genitourinary system.

Infection and Disease

Many diseased show no microfilaria and not all infected people show disease. The microfilaria rate is greatest in males in most countries and it has been suggested that hormones influence the level of parasitaemia. The rate is at peak in 15-20 age group, whereas signs of filarial disease become apparent in the 20-29 age group.

Pathology

In most cases of filarial infection, the parasite does not exercise or manifest any injurious influence on the host and in endemic areas of filariasis, there are many people

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with microfilaraemia who show no clinical or pathological signs of filarial infection i.e., asymptomatic carriers. Healthy, fully formed microfilariae are usually harmless except in case of tropical pulmonary eosinophilia. An infected mosquito when bites, discharges the 3rd stage larva (infective form of the larva) into the skin from where it enters local lymphatic channels. From this infective larva matures and becomes adult worm. Male and female adult worm conjugate for production of microfilariae. The injurious influence produced by the adult worm as well as microfilariae in the lymphatic system is an inflammatory reaction focused in this system. This leads to either lymphadenitis or lymphangitis. The pathogenic effects are mainly due to mechanical obstruction as well as irritation by the adult worms. The patient first develops rigor with allergic fever before the development of lymphangitis or lymphadenitis. The damage to the endothelial layer of lymphatics invite bacterial infection, caused mainly by streptococci. Because of the local oedema of lymphnodes and lymphatics due to inflammation and infections, the concerned lymphnode become palpably tender. As the capsule of the lymphnode is nonstretchable but sensitive, a constant pain is felt due to increased tension inside the capsule. The lymphnodes and lymphatic channel are obliterated in the early stage due to mechanical obstruction caused by bolus of adult worms and microfilaria, inflammatory oedema, proliferation of endothelium in response to toxic inflammation. This deprives the area of lymphatic drainage and leads to local oedema due to collection of lymph in dependent parts. This is the pitting stage. As the lymph is rich in carbohydrate and protein it invites local infection by strepto and staphylococci leading to cellulitis which can spread to end in gangrene or septicaemia or may be localized in the form of an abscess or ulcer. The cellulitis subsides automatically if the immunity is strong enough or if early treatment is started. There is hypereosinophilia due to liberation of allergens by adult worms and neutrophilia due to local infection. Later, on there is lymphocytosis as the cellular immunity comes to play a role.

In late stage of this disease fibrosis develops surrounding lymphatics and in lymphnodes. This and obliterative endolymphangitis causes complete obstruction of lymphatic channels and an abnormal pattern of dermal backflow develops and leads to further development of lymphoedema. The adult worms may become calcified. Due to repeated infection there is local fibrosis and coagulation of lymph, there is transduction into the tissues of lymph rich in protein which causes cellular proliferation in the connective tissue and the production of elephantiasis.

Gradation of Oedema

Grade-I. Lymphoedema with slight increase in limb

size, mostly pitting oedema, some fibrosis, spontaneously reversible on elevation.

Grade-II. Lymphoedema with obvious increase in limb size but without deformities, mostly non-pitting oedema, much fibrosis, not spontaneously reversible on elevation.

Grade-III. Elephantiasis, the affected limb being deformed, with local bulging and with chronic skin abnormalities of grade II oedema with much dermatosclerosis. Regarding scrotal and penile oedema gradation bears no clinical importance at all.

Clinical Filariasis

The incubation period is usually from 5 to 15 months as infective (3rd stage) larva takes about one year to mature into adult worm. In early filariasis, the onset is manifested by painful swellings of the scrotal contents. Acute swelling of the lymph glands of the inguinal, femoral, axillary or epitrochlear region is common. Lymphangitis and filarial fever are less common in the earliest stage.

Acute Presentation

Acute filarial fever, acute lymphangitis, lymphadenitis, orchitis, epididymo-orchitis, funiculitis, mastitis, myositis, acute urinary tract infection, abscess formation.

Chronic Presentation

- (a) Lymphatic block with distal dilatation. Lymphangiectasis (Lymph varix).
Hydrocele of scrotum (Lymph scrotum), Hydrocele of breast.
- (b) Lymphatic block with distal dilatation and rupture. Chyluria, chylothorax.
Chylous ascitis and lymphorrhoea.
- (c) Lymphatic block with lymphstasis. Elephantiasis of upper limb, lower limb, breast, scrotum with or without ramhorn penis, vulvae.

Silent Presentation

Hydrocele.
Tropical pulmonary eosinophilia.
Angioneurotic oedema.

Diagnosis

Microfilaria in blood.

The diagnosis is best made on clinical manifestation. The absence of microfilariae does not exclude filarial disease as this is found in a small percentage of cases and only in early filariasis.

Eosinophilia

A moderate eosinophilia 33-50% is found in most early cases of filariasis.

Symptomatic Treatment

Recurrent adenolymphangitis and filarial fever.

Treatment should consist of removing any cause of

irritation, rest, avoiding undue exertion, elevation of the affected part, cooling lotions, relief of pain and subsequent elevation and bandaging of the part.

Chyluria

Resting and elevating the affected part to diminish hydrostatic pressure in the distended vessels and amount of food and fluid to be restricted. Surgical treatment can be successful.

Chylocele, Hydrocele

May be treated as ordinary hydrocele.

Elephantiasis

Prolonged firm bandaging. The patient is put to bed and firm bandaging is started from the foot upwards. Sponge rubber is used to protect the tissue from too tight bandaging. The bandages are removed everyday and replaced a little tighter.

Abscess

Abscess caused by filariae must be opened and drained.

Mode of Clinical Assessment

The acute clinical manifestations should be the preferred parameter for clinical evaluation. Efforts should be made to record the duration of each attack of adenolymphangitis and the frequency of attacks in a defined period of time, usually preceding one year, reduction in duration and frequency of adenolymphangitis resulting in reduction in number of working days lost is a measure of improvement index. The prevalence of chronic manifestations take a longer time to change and should only be used in longer term evaluation. CCRH has formulated parameters for clinical assessment in relation to frequency, duration and intensity of acute filarial attacks, which could be acceptable to scientific world. These are:

Marked Improvement of Attacks Subsided

When the patient remains absolutely free from any kind of filarial manifestations including even adenitis for a period ranging from two to three years depending upon the frequency of attacks being at very short interval or long interval respectively.

Moderate Improvement of Attacks Subsided

When the patient remains free from attacks for a period ranging from 1-2 years depending upon the frequency of attacks as above.

Mild Improvement

Reduction in frequency, duration and intensity of attacks compared to the initial history.

Reversal of oedema from grade II to grade I form is another improvement index. Pain is another constant feature of filariasis incapacitating the patient. Relief from

pain and enhanced tolerance to exertion proves immensely helpful to patient, specially rural population of India as this increases their capacity to work in fields.

The patient on first entry is subjected to a detailed case history. The clinical history is taken in respect of duration of disease, first attack, last attack, parts involved, frequency of attack as well as factors precipitating the attack. Its duration and intensity, details of febrile illness along with associated symptoms are noted. The grade of oedema along with obliteration of bony points or not or any dermal changes and type of lymphoedema, whether pitting or non-pitting are noted. The affected parts are measured at various levels. This is followed by generalities, mentals, past, family and personal history, physical examination—local as well as general are completed and patient routinely examined haematologically i.e. TLC, DLC, Hb, and NB (night blood) for Mf, and routine stool and urine tests including microscopic examination of urine for presence of microfilariae. Absolute eosinophil count per cu mm of blood is taken of those showing eosinophils at 30% or more.

Full physical and microscopical examination of urine is undertaken of the patient complaining of passage of turbid or milky urine (chyluria).

If the case presents itself with acute manifestations the patient is usually prescribed for acute presenting complaints taking into account acute totality of symptoms. Later on indicated drugs based on physical and mental generals or various other angles viz., modalities, keynotes, miasmatic, precipitating factor etc., are prescribed to cover the entire case. The treatment spread over a period of 2-3 years or even more in chronic cases is interspersed with administration of nosodes or other suitable intercurrent drugs. The patients are advised in general to avoid factors precipitating attacks even though this is not practical in day to day life as even a slight exertion brings on adenitis. Patient is better advised to avoid loss of sleep, long walks or use of cold, stale food as this often precipitates the attack. Acute attacks during the course of treatment are to be taken care of interrupting the adopted long term treatment.

All patients are reviewed at the end of every year and for each patient a wholesome review is prepared over the entire period of treatment based on number of attacks or absence of it.

The oedematous part is measured at some interval as a follow-up noting to see the reversal or reduction in type/grade of oedema, dermal pathology, if any. Follow-up blood examination is done at regular intervals for comparative study on microfilariae count and peripheral eosinophilia.

Therapy

CCRH has identified some of the remedies which are most useful in filarial cases. These are derived from the work conducted by all the three centres at Gudivada

Tirupathi and Puri over the years. These are *Rhus tox*, *Bryonia alba*, *Apis mellifica* and *Sulphur* and these drugs alone cover 60% of cases and roughly 45% of cases respond to these drugs only. Other important drugs are *Natrum muriaticum*, *Pulsatilla*, *Lycopodium*, *Rhododendron*. Next in the line are *Belladonna*, *Calcarea carbonicum*, *Lachesis*, *Mercurius solubilis* etc. *Thuja*, *Medorrhinum* and *Sulphur* act as effective inter-currents when applicable.

Here, we would like to mention that drugs like *Anthraxinum*, *Tarentula cubensis* and sometimes *Veratrum viride* act very well in acute adenolymphangitis, specially one with severe cellulitis associated with burning. Similarly use of *Thiosinaminum* in oedema to some extent, use of cooling lotions and ointments help relieve the pain and burning and gives much soothing effect. These are *Hydrocotyle*, *Echinacea*, *Calendula* and *Arnica* lotions and ointments.

Observation in respect of some important reliable indications of drugs.

<i>Apis mellifica</i>	Glossy oedema Burning amel. cold application Scanty thirst
<i>Belladonna</i>	Acute congestion Sudden onset Sensitiveness Throbbing pain
<i>Bryonia alba</i>	Hot patient Profuse thirst agg. motion, pressure Local oedema of all types, especially fibrotic
<i>Lycopodium</i>	Chilly patient Desire for warm food, sweets Flatulent dyspepsia
<i>Mercurius solubilis</i>	Profuse sweat Profuse thirst Suppurative tendency Mucus stools
<i>Natrum muriaticum</i>	Intolerance to sun-heat Desire for cold, salt Mental irritability
<i>Pulsatilla</i>	Hot patient Desire for cold Thirst scanty Mild disposition
<i>Rhododendron</i>	Affections of male genitalia Hydrocele
<i>Rhus tox</i>	All cases of recent origin or acute over chronic Frequent episodes of adenolymphangitis agg. exertion Cord like swelling

Sulphur

Local or generalized burning
Cold amel.

Desire for sweets, cold, accompanied by gastric or skin disorders—

Most Useful Potency

Filariasis being a chronic periodic disease, requires long treatment. This requires treatment with medicines in serial potencies i.e., right from 30th to CM. Medium potency helps to check the active phase of the disease and other potencies later on to stabilize the case. Use of mother tincture and 3x is often useful in acute episodes.

Frequency of Administration of Drugs

30th potency once or twice a day continuously for a month or two.

200th potency few doses per month.
IM onwards—one dose per month.

In case of 50M or CM—
1 month to 6 months interval.

During acute paroxysms—Low to medium potency at 3-4 hours interval.

Discussion

From the above data exhibited, it is clear that *Rhus tox* emerges as singularly the most useful remedy. It is applicable in all forms of clinical filariasis. Toxic effects of DEC usage for treatment of filariasis are well known. Role of homeopathy becomes all the more important as factors like resistance and toxicity are almost never encountered. CCRH after years of extensive work on Filariasis has confirmed the efficacy of *Rhus tox*, *Bryonia alba* and *Apis mellifica* in this disease and these three drugs have been recommended to be included in the National Control Programme of Filariasis.

The comments of Dr. S. P. Koppikar, Editor, The Homoeopathic Heritage as published in the June 1991 issue are given below:

Being in Madras, I have had a lot of experience in the treatment and management of Filaria.

My greatest surprise in the above list is the absence of *Arsenic album* which has been wonderful in putting a stop to the nocturnal, midnight rigors, which sometimes occur at Full and New moon.

The best potencies are 200 and 1000.

We should like to know if the blood examination at the end of treatment is negative for the microfilaria.

Hydrocotyle asiatica 3 to 5 drops, twice daily over long period, and in some cases given along with *Calcarea fluorium* 6x, has reduced and almost normalised Elephantiasis of legs and arms, and especially the other skin troubles that come along.

Rhus tox, *Pulsatilla* and *Rhododendron* have CURED most of my cases of Hydrocele, all in 6th or 30th potency repeated daily.

Silicea has in 1000, 10000th potencies done wonderful work on glandular enlargement and hardening.

At least twenty-five per cent of patients get great help by anti-tubercular high potencies of *Drosera*, *Tuberculinum* and *Arsenic album*.