



Onchocerciasis

by

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Mass tourism is the reason that endemic African diseases are brought into Europe, where they then have to be treated. Onchocerciasis is one disease that rarely occurs around here and is furthermore easily confused with other tropical diseases.

This archaic disease, endemic to the tropical areas of Africa, Middle and South America, is transmitted by nematodes (*Wucheria bancrofti*, *Brugia malayi*, *Onchocerca volvulus* and *Loa loa*) and is one of the filariases. Approximately 150 million people live in the tropical endemic areas, but an estimated one billion people are at risk due to the carrier mode and ever-growing tourism. The Sahel, Togo and Ghana are areas where the pathogen is widespread. A long-distance traveller to those endemic areas runs a high risk of infection. The disease is a heavy burden for those affected, mainly due to its difficult complaints, subcutaneous cysts, elephantiasis and blindness.

The Course of the Infection

The infection begins with the bite of an otherwise harmless mosquito. The infected mosquito (*Simulium* spp.) transmits a microscopically small larva while sucking blood. This larva - over the course of a year - develops into an adult worm of up to 70 cm (!) in length that clinically materializes in the subcutaneous cell tissue as nodule of the connective tissue, but also as lymph varix, hydrocele or chylocele. After mating the female produces offspring in the form of microfilariae that are just a few micrometers big. These microfilariae migrate to different

organs, specifically the skin and also the different segments of the eye and thus are the true cause of the blindness. One of the reasons why they migrate to the skin is to be reabsorbed by mosquitoes.

Complaints:

1. In general: Many infections don't lead to the acute onset of the disease. The incubation period is normally inconspicuous. The acute disease shows intermittent fever together with:

Lymphangitis: Three months after infection at the earliest some cases show numbness of the extremities with pain and lymph adenoma in the axillary and inguinal regions.

Skin and sub-cutis: The microfilariae produce an allergic itch with dermatitis without obvious cause, as well as the triad of lichenization, atrophy and depigmentation of the epidermis. Loose, hanging skin folds can be an exterior sign for the disease.

Not all of the nodules of the connective must be tangible. Very frequent is elephantiasis of the scrotum, the labia and the mamma, with a general concentration on the lower extremities.

2. Eyes: Attention should be paid, when the patient complains that he sees moving „particles“ (= microfilariae) in the eyes. In the endemic areas approximately 1 – 10% of the population go blind:

a.) Due to larvae in the anterior eye

segments: Cornea and anterior chamber with punctate keratitis, photophobia, conjunctivitis, iridocyclitis, uveitis, secondary glaucoma, cataract, as well as

b.) due to toxic-allergic processes in the posterior eye segments like optic neuritis, chorioretinitis and optic nerve atrophy (Behr's disease onchocerciasis).

Evidence of Onchocerciasis

- The search for microfilariae is necessary (blood must be taken at night!), since serodiagnosis is not species-specific.
- Intracutaneous test, complement binding reaction, eosinophilia;
- Skin biopsy, lymphadenectomy (histological identification of microfilarial);
- Extirpation of the nodules of the connective tissue (histological identification of the adult worms);
- Clinically: Exacerbation of the itch.

Previous Therapy

Much has been improved already according to the opinion of the local African (Togo) physicians (see points 1. and 2.), like the sanitization of the affected, chemical prophylaxis, general (insecticides) and individual (repellents) control of the mosquitoes. The author, however, does not believe that everything has yet been done.

The mosquitoes' breeding grounds (river banks) were and still are sprayed with insecticides by helicopters. This is a relatively expensive method.



It has been tried to interrupt the infection cycle of the worms with chemotherapeutical means (Ivermectin).

The Bernhard-Nocht-Institute in Hamburg (Dr. A. Hörauf, lecturer), found out that the worms carry bacteriae, endobacteriae that are very closely related to rickettsia and have entered into a symbiosis with the microfilarias. A tetracycline therapy kills off the bacteria and consecutively damages the genetic information of the filariae, resulting in poor growth and mainly in the infertility of the worms.

What Can Isopathy Do in Such a Case?

The a.m. endobacteria are a sophisticated form of a subcycle of the penicillium-cyclogeny and thus react to an isopathic therapy.

The following therapy suggestion can be used for the treatment of the affected in endemic areas as well as for the treatment of non-African tourists to the endemic countries; the therapy takes 2 – 3 months:

- 1.**
ALKALA N, 1 tsp in hot water twice a day and CITROKEHL, 2 x 10 drops a day,
- 2.**
At the same time NOTAKEHL 5X drops, 2 x 10-15 drops a day (or 2 x 5X tbl a day) for 10 days, then switch to

- 3.**
NOTAKEHL 4X capsules and SANKOMBI for a couple of months, according to the following treatment plan:

5 days (Monday – Friday): SANKOMBI 5X drops, 2 x 10 drops a day, 2 days (Saturday and Sunday): NOTAKEHL 4X capsules, 2 x 1 a day, then start anew. While NOTAKEHL is being taken, an ampoule NOTAKEHL 6X can additionally be injected s.c. or i.m.

- 4.**
At the time of changeover from NOTAKEHL to NOTAKEHL + SANKOMBI, also begin with UTILIN “S“ 6X drops 2 x 10 a day (externally /orally)

- 5.**
Additionally SANUKEHL Strep 6X drops and SANUKEHL Myk 6X drops are administered. 1-2 x 10 drops a day (5 drops orally / 5 drops externally) every other day.

- 6.**
Apply NOTAKEHL 3X ointment onto the phlogistic skin parts.

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