

Medical Matters.

FILARIA NOCTURNA AND THE PROBABLE INFECTION OF MAN BY THE BITE OF THE MOSQUITO.



THE fact that the mosquito extracted the filarial worm in the blood sucked from infected human beings has long been known, and also that the parasite developed, to some extent, in the muscles of the mosquito, but how the parasite gained access to the human body was a much-debated point. A couple of months ago Dr. George C. Low, Cragg's Scholar London School of Tropical Medicine, discovered in a specimen of filarial infected mosquito, sent from Australia, that the mosquito transmitted the parasite whilst biting. At any rate, a positive conclusion in this direction seems justified, from the fact that Dr. Low discovered a filaria evidently making its way outwards along a channel in the proboscis. The filaria does not pass along the salivary duct, its size prevents that, but it makes an independent channel through the base of the labium and pushes forwards along the proboscis between the labium and the hypo-pharynx.

The dread of the mosquito bite is thus increased manifold. It is now held guilty of causing malarial infection, and also of directly injecting the filarial worm into the human being whilst it bites. Infection by the malarial parasite is dangerous enough, but when to this has to be added the train of ailments, lymph scrotum, elephantiasis of the scrotum and limbs, chyluria, etc., consequent upon filarial infection, the danger is increased to an amount positively terrible in its possibilities.

ETIOLOGY OF MALARIAL FEVER.

Dr. W. S. Thayer (*Philadelphia Medical Journal*) says that it may now be considered as proved: 1. That the malarial parasite possesses an extra-corporeal cycle, which is completed in the stomach wall of mosquitoes of the genus *Anopheles*. 2. That members of the genus *Anopheles* can transmit malaria from infected to non-infected individuals. There is then reason to believe, says the writer, that if in any given region (1) proper measures for treating the spring relapses of malaria were adopted, and (2) efficient measures for destroying the dangerous mosquitoes in their larval stage could be carried out, the prevalence of malaria might be materially controlled.

RÖTHELN.

Dr. John Moir (*British Medical Journal*, May 5th, 1900), writing from the point of view of a school medical officer, indicates two points in connection with röteln of interest; first, the possibility of recognising the primary invasion; secondly, the diagnostic importance of glandular involvement.

In a large girls' school, on the appearance of a case of röteln all the girls were cautioned to report themselves if indisposed in any way.

Eight presented themselves, complaining of slight headache, the temperature was 0.5 to 1.0 degrees F. above normal, subcutaneous mottling, morbillary in character, was found on neck and chest.

These symptoms disappeared during four days' isolation, when the girls returned to work.

Fourteen or sixteen days later, however, the developed symptoms of röteln were evident in these cases. Dr. Moir says:—"It seems to me that such cases go to show that, on the first invasion by the poison, an impression is made sufficient to cause the symptoms noted, and that, during the subsequent 'incubation' period, they disappear, until the maturation process is complete." As to glandular involvement, this was pronounced in practically every case at this later stage of the epidemic. The mastoid, posterior cervical, and occipital regions being affected, all, one or other. The swelling and tenderness of the glands preceded the rash.

It will be observed that Dr. Moir, in addition to addressing himself to the points above indicated, enunciates in connection with the first, a proposition of such novelty in the etiology of röteln as to demand some critical consideration. The supposition that the fourteen to sixteen days' interval between the occurrence of the indeterminate symptoms first noted in the eight cases referred to, was co-incident with a period of "incubation" of the poison of which they denoted the "invasion," is unlikely to commend itself to students of the behavior of infection in this or allied diseases.

Glandular involvement, on the other hand, has probably had not too little, but too great importance attached to it as diagnostic—at least from scarlet fever. And that it precedes the rash is contrary to the opinion of most observers. The epidemic character, and peculiar exclusiveness of contagion, are the most salient features from a diagnostic point of view of röteln.

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