

A CASE OF URETHRAL MYIASIS

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In 1898 I had the chance to observe for the first time in Roumania cases of myiasis. These observations were published in the Archives de Parasitologie and also another case in 1900. This time of the four larvae abstracted from an abscess in the gum one transformed into a fly (*Sarcophaga wohlfahrti*). I communicated other cases in 1912 and again in 1913 a case of creeping disease to the Centralblatt für Bakteriologie.

In July, 1920, a student, M. N. T., 22 years old, came to me and related that before going to bed he had urinated eleven worms which he brought in alcohol. Some days before he had felt at intervals slight tickling sensations accompanied by erections and sometimes by ejaculations. On examination of the specimens under the microscope we recognized normal larvae of *Musca domestica*, about 6 mm. long.

Certain authors, among them Leuckart, have declared that it was impossible for insect larvae to live in the urethra or bladder on account of lack of air. However we believe with R. Chevrel that they find in these organs the biological conditions indispensable to their existence and development; obscurity, humidity, heat, nourishment and oxygen. Nourishment is supplied principally by the mucopurulent secretion, or the albuminoid filtrate which lines the walls of the bladder or urethra. They obtain oxygen either from the outer air or from the gas which the bladder contains in a free state.

I did not think that this case could be a fake, for the young man was a very serious student, robust and in good health. I expressed doubt about the cleanliness of the vessel, but the student assured me that the urine was clear and the smallest foreign body could be seen even at the bottom of the white vessel. I then examined the organ to see if by chance flies might not have deposited eggs under the prepuce where the larvae might have made their way into the urethra. The organ was in a state of perfect cleanliness so I had to abandon this hypothesis.

I recalled the case of Edouard d'Haeneus (1898); a patient who had eliminated from the urethra larvae of the domestic fly had the habit when bathing to inject water into the urethral canal. In this case he probably injected into the bladder with the water fly eggs and these were later transformed into larvae. The young man said that he had never injected water, that formerly when attacked by blennorrhagia

he had made medicinal injections, but that after his cure (three months previously) he had not made a single further injection. In order to be convinced that there was really no trace of discharge, I told him to press the organ tightly at the base. As he did this he declared that all at once he felt a tickling sensation. The organ immediately became erect while the patient showed pain and evacuated in my presence from the urethra with the sperm eight fly larvae resembling in every respect those which he had brought the day before in alcohol. The occurrence leaves no room for doubt that this is an authentic case of myiasis of the urinary passage.

July, 1920, was very warm at Jassy. The young man told me he slept at night without pajamas covered only with a sheet which he threw aside at times on account of the extreme heat. The slight discharge still present as the last trace of the blennorrhagia had been sufficient to attract the flies, which as is known have a very well developed sense of smell. They had deposited their eggs in the neighborhood of the urinary meatus, and larvae had penetrated into the urethra and perhaps even into the bladder.

The explanation which R. Chevrel gives of the penetration of fly larvae agrees fully with this case. The genitalia, imperfectly protected by clothing, are visited in the early morning by flies attracted by the warmth of the body; if at this time menstruation, recent emission, or discharge from the bladder or urethra has left in the neighborhood of the urinary meatus any trace of organic matter the flies may easily deposit their eggs there. The victims, deep in sleep, cannot protect themselves. Placed under the edge of the prepuce or in the folds of the vulva the eggs so protected and maintained at a high temperature will hatch at the end of a few hours and endowed with remarkable vigor and activity the fly larvae incessantly creep about until they end by finding the urinary meatus. Thanks to their insignificant size they circulate in the mucus without provoking sensible tickling sensations and pass easily into the urethra.

I hoped that the larvae would be transformed into nymphs, but two days later all eight were dead. I saw the young man again a month later. He told me he had not felt a single one of the symptoms he had noted previously. Probably all the larvae had been eliminated naturally.

REFERENCES CITED

- Chevrel, R. 1909.—Sur la Myase des voies urinaires. *Arch. Parasit.*, 12: 370-450.
Haenens, E. 1898.—Myiasis du canal de l'urèthre. *Ann. Bull. Soc. méd. d'Anvers*, 60: 101-112.
Léon, N. 1898.—Quelques cas de Myase observés en Roumanie et leur traitement par les paysans. *Arch. Parasit.*, 1: 314-315.
1900.—Notes de parasitologie Roumaine. *Arch. Parasit.*, 3: 228-236.
1912.—Notes de parasitologie. *Centralbl. Bakt. Par.*, I. Orig., 78: 382.
1913.—Un cas de Creeping disease en Roumanie. *Centralbl. Bakt. Par.*, I. Orig., 72: 384.