Hillmantel (J. L.)

## A CASE OF DISTOMA HEMATOBIUM.

BY

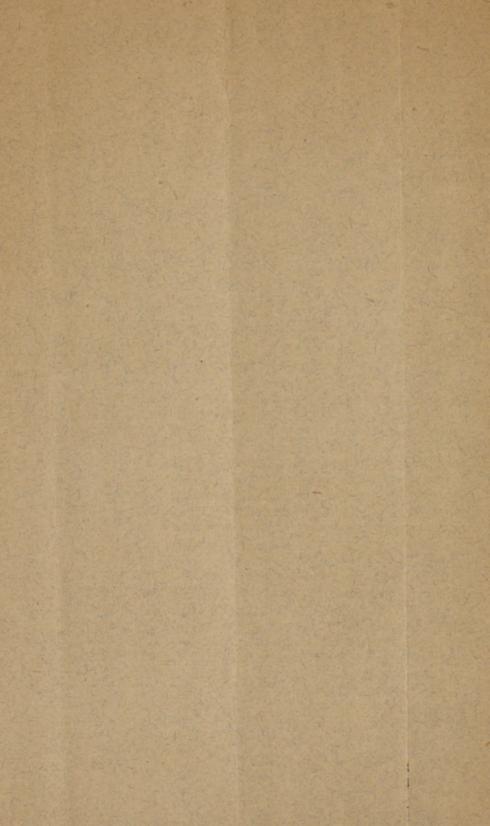
By J. L. HILLMANTEL, M. D.,

RESIDENT SURGEON WORLD'S FAIR HOSPITAL, CHICAGO.

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## A CASE OF DISTOMA HEMATOBIUM.

By J. L. HILLMANTEL, M. D.

RESIDENT SURGEON WORLD'S FAIR HOSPITAL, CHICAGO.

The case which I have to present to the society is that of an Egyptian boy who came from his native country last spring with the management of the street in Cairo on the Midway Plaisance. The case is of special interest to us inasmuch as the disease from which he is suffering is an extremely rare one and never met with in this country, excepting in individuals who have come directly from the countries in which it is prevalent.

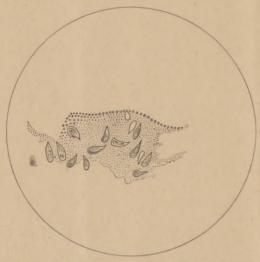
V. Jaksch says that over one-half of the population of Egypt is affected, and this is the country in which it seems to be most prevalent. Ringer found some cases on Formosa. Mauson found ova of the same species in sputum of a Chinaman who had lived for some time on Formosa. Da Costa relates that it is found also in Brazil and South Africa. The affection is met with only in tropical zones.

The description given by the various writers is that it is a parasite which inhabits the small vessels, chiefly veins of the bladder, ureters, pelvis of kidney, the portal, mesenteric, splenic and rectal veins. Especially in the veins of the bladder the female deposits her eggs, producing hematuria. If deposited in the rectal veins bloody diarrhea follows. In the blood of peripheral vessels it has up to this time not been found. The parasite is a worm, white in color and sexually separate. The male is 12-14 m m long and thicker than the female, which is 16-19 m m long and slender. They are provided with two discs, one near the anterior extremity and the other on the abdomen. The sexual

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opening is placed in both just behind the disc on the abdomen. The ventral surface of the male is furrowed and serves for the reception of the female. The eggs of this parasite are rather slender in form, oval, and have a spike projecting from one pole or sometimes at the side. They are 0.12 m. m. long and 0.04 m. m. broad. Their interior appears granular.

Orth in his pathology says the developed distomata collect in the veins of the walls of the bladder, the mucous membrane of which shows corresponding changes; namely—irregular, insular, grayish yellow, sandy plates which are often firmly attached. The submucosa is thickened. The plates look knotty like condylomata and contain the ova.



1. A nest of the ova, imbedded in a small clot of blood passed with the urine, magnified 50 diam.

The distoma is said to enter the system in drinking water and during bathing and is supposed to find its way from the intestine into the veins of the bladder. It may also enter the urethra directly.

The patient here, presented himself at the World's Fair Hospital some weeks ago suffering from hematuria. He was first seen by Dr. S. C. Plummer, who referred him to me. The age of the patient is 12, occupation, donkey driver, which he has pursued without intermission. The history and description of symptoms, which could be obtained only from the boy, were very meager. He complained of no pain and no inconvenience. Simply the fact of his noticing blood in his urine induced him to consult a physi-

cian. He has noticed blood in his urine for the past six years, the quantity varying at different times. General health good. Temperature and pulse, which were taken daily for some time, showed no deviation from the normal.

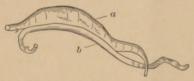


2. Single ovum magnified 350 diam.

Urinalysis shows sp. gr. 1,020, reaction acid, color reddish brown, albumin present about one-third by volume, and there is considerable sediment with clots of blood.

Microscopical examination reveals:

- 1. Red blood corpuscles in immense numbers, crenated but otherwise showing nothing abnormal.
  - 2. Leucocytes.
  - 3. Blood in clots.
  - 4. Bladder epithelium in masses.
  - 5. Bacteria-probably from external sources.
- 6. Ova of the distoma hematobium. The last mentioned prove of particular interest. They have the form and characteristics described by Bilharz and others.



a-Male, b-Female

3. Copied from V. Jaksch, showing the fully developed parasite, the female lying in the furrow of the male.

Repeated examination of the boy's blood taken from the finger showed no special causes for the hematuria and excluded malaria, which might come into consideration. The patient is suffering from anaemia due to the long-continued drain on his blood-forming organs and the treatment is directed in the direction of aiding repair.

The danger of distributing the disease among the population here during his sojourn is nil, as the parasite has never been known to thrive in temperate zones.

Up to the present I have been unable to find a fully devel-

oped animal, though some of the ova show distinct signs of elongation and growth.

The specimens to be demonstrated are: 1, the urine; 2, a nest of the ova imbedded in a clot of blood under low power; 3, a separate ovum under high power.



