

NOTA PARASITOLÓGICA

Human Sparganosis: First case reported in Cuba

Sparganosis is the disease caused by the plerocercoid larva of cestodes of the genus *Spirometra* (Mueller, 1937) to humans who accidentally interrupt the parasite's life cycle by either of the following ways^{2,4,6}:

- by drinking water containing infected cyclops,
- by eating raw or undercooked infected meat of intermediate hosts such as frog, snake, racoon, pork, etc., or
- by using raw meat of these infected vertebrates as poultice on affected skin, and on conjunctival or vaginal mucosae.

After ingestion of the infecting form, or proceroid larva, it penetrates the intestinal wall, migrates within the blood flow and infects the subcutaneous tissue. The adult form of *Spirometra mansonioides* (Manson, 1882), and *S. proliferum* can only be found in cats and bobcats' intestinal tract. *S. houghtoni*, however, was reported as a human parasite (Faust et al, referred by Beaver). In the subcutaneous tissue, the migrating form, a 30 cm by 3 mm flat worm, produces nodules usually located in the subcutis but could also be seen in the heart, eye, and brain, eventually accompanied by eosinophilia and fever^{1,2,4,5,7,8,9,11,12,13,14,15}.

In the Western Hemisphere, Sparganosis has been reported^{2,3,4,6,10,12}. However, no Cuban autochthonous case has been reported neither in the international literature nor in the national journals.

Case report:

A previously healthy 53 years old black male was admitted in the General Hospital Luis de la Puente Uceda, in Havana City, with lower respiratory tract symptoms of sudden appearance. The microbiology studies of sputum were negative.

Only a discrete eosinophilia of 7 to 10% (500 eosinophiles / mm³) was found in the peripheral blood exams which otherwise were normal. He was treated with antibiotics and remained "healthy" for almost a year when he noted a tumor with inflammatory characteristics, in the right inguinal region for which he underwent surgery.

The Pathologist received a firm dark brown tumorlike mass of about 3 cm in diameter with a small cystic cavity. Under the microscope, after routine histological process, such small cavity was occupied by a structure with pseudosegmented tegument overlying a highly cellular layer which was followed by a laxus mixoid parenchyma composed by scarce muscle fibers (Fig. 1) and excretory ducts converging toward an invagination of the outer layers (Fig. 2). No scolex or pseudosuckers were found. A dense subacute inflammatory infiltrate was surrounding this structure.

The patient denied the consumption of raw meats, or its use as poultices. However, he accepted drinking water from wells in the countryside before he was admitted for the first time in the hospital.

The benignity of the clinical process, the scarcity of abnormal figures in his laboratory studies and the absence of ramifications of the worm suggest that our patient was infected with either the *S. mansoni*, *S. mansonioides* or related species and opposes the infection by *S. proliferum*.

According to the information obtained, the consumption of contaminated water could be the way of infection for this patient. This is the most frequent way of infection described in the literature^{2,10,12}.

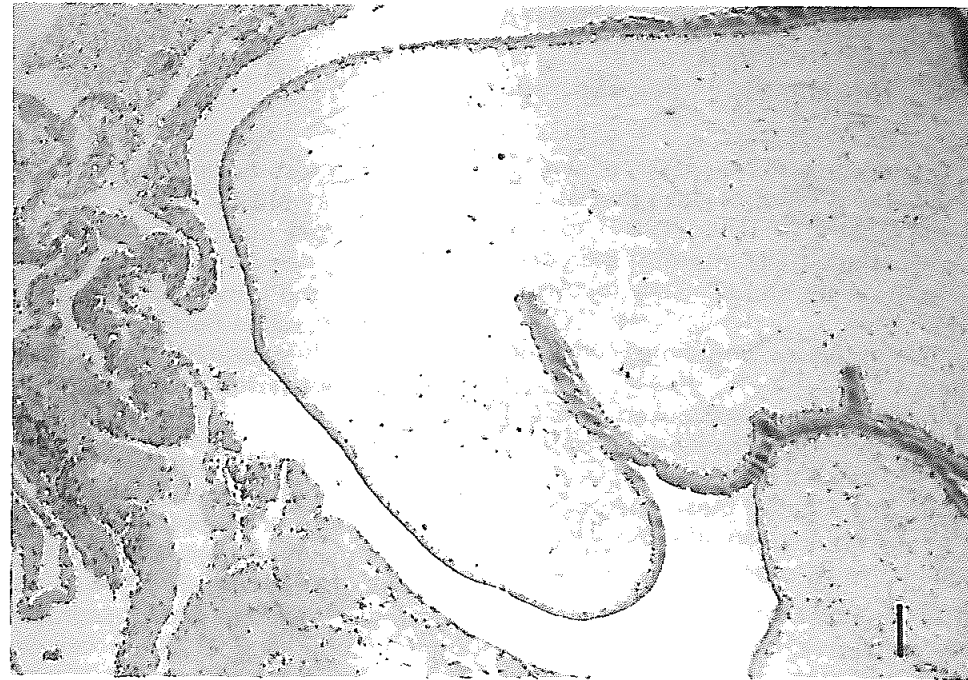


Fig. 1: Section of Sparganum within a cyst whose wall shows a severe inflammatory infiltration (H/E, $\times 75$)



Fig. 2: Tangential section of cephalic end of Sparganum. (H/E, $\times 400$).

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