Title:
Hepatosplenic schistosomiasis: an uncommon cause of liver disease in developed countries

Authors:
Álvaro Yagüe Parada, Rocío Calvo Hernández, Marta León del Campo, Montserrat López Carreira, Sara Aurora Rodríguez Vargas

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Dear Editor,

Schistosomiasis is a parasitic infection caused by trematode species of the genus *Schistosoma*. Its geographical distribution is concentrated in tropical areas of Africa, Asia and South America, being rare in Europe, where it is usually diagnosed in immigrants and tourists from endemic areas. It has different clinical forms of presentation. Hepatosplenic schistosomiasis produces periportal fibrosis, which can progress to presinusoidal portal hypertension, with all its associated complications. We present the case of a 43-year-old female patient from the Philippines, with no medical conditions or drug allergies, who was referred to gastroenterology consultation due to liver enzyme alteration with a predominantly cholestatic pattern. She denied alcohol or substance abuse, intake of usual medications or recent use of antibiotics, herbal supplements or nonsteroidal anti-inflammatory drugs. Physical examination was unremarkable.

An aetiological study was performed (serologies of hepatotropic viruses, autoimmunity, iron metabolism, ceruloplasmin and alpha-1 antitrypsin levels), with...
negative results. An abdominal ultrasound revealed signs of chronic liver disease (figure 1A), with transient elastography of 9.5 kPa. A percutaneous liver biopsy was performed, with histological findings consistent with infestation by schistosome eggs (figure 1B), which could correspond to *S. japonicum* due to her country of birth. She received treatment with praziquantel at a dose of 20 mg/kg three times a day for one day, subsequently verifying its eradication with a stool test.

Seven pathogenic species of *Schistosoma* have been described in humans: *S. haematobium*, *S. mansoni*, *S. japonicum*, *S. intercalatum*, *S. guineensis*, *S. mekongi* and *S. malayensis*. Its geographical distribution is determined by the range extension of a freshwater snail that acts as an intermediate host. However, definitive hosts are humans, who become infected through direct skin contact with contaminated water. The clinical signs may occur in acute or chronic form, which is much more frequent in immigrants.

Hepatosplenic schistosomiasis is caused by the deposition of schistosome eggs in presinusoidal capillaries. A granulomatous reaction forms around the eggs, causing periportal fibrosis. This leads to the development of presinusoidal portal hypertension, which is responsible for the appearance of splenomegaly, portosystemic collateral veins and esophageal varices. As opposed to cirrhosis, liver parenchyma is preserved until final stages of the disease.

Abdominal ultrasound is helpful to reach the diagnosis, evaluate its systemic repercussions and monitor the response to antiparasitic treatment. The visualization of hyperechoic linear or oval periportal structures is characteristic. Other findings are diffuse hyperechoic foci or echogenic thickening of the gallbladder wall. These changes, without being specific, lead to a rapid identification of the condition when they are present.

Diagnosis is made by identifying schistosome eggs in stool, urine or biopsy specimens. The current drug of choice for treatment is praziquantel.

**Bibliography:**
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**Figure 1A. Ultrasound.** Normal-sized liver with blunt edges and heterogeneous echogenicity, signs compatible with chronic liver disease. **Figure 1B. Pathology.** Perivenular rounded structures with basophilic granular material and signs of incipient calcification, consistent with schistosome eggs.