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Cristina Saldaña Dueñas<sup>a,\*</sup>, Silvia Goñi Esarte<sup>a</sup>,  
Jose Francisco Juanmartiñena Fernández<sup>a</sup>,  
Marta Montes Diaz<sup>b</sup>, Rosa Iglesias Picazo<sup>a</sup>

<sup>a</sup> Digestive Department, Complejo Hospitalario de Navarra, Pamplona, Spain

<sup>b</sup> Department of Pathology, Complejo Hospitalario de Navarra, Pamplona, Spain

\*Corresponding author.

E-mail address: [crisaldu@hotmail.com](mailto:crisaldu@hotmail.com) (C. Saldaña Dueñas).

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## Intraperitoneal splenosis



### Esplenosis Intraperitoneal

Splenosis is defined as the heterotopic transplantation of splenic tissue after abdominal trauma or splenectomy.<sup>1</sup> It is a benign and acquired condition. Implants can be multiple in number, and located both intraperitoneal and extraperitoneal; other locations include pleural cavity, pelvis, subcutaneous tissue, thoracic cavity, cerebrum and liver.<sup>2</sup> Most cases are incidental findings during surgery, autopsy or after imaging studies for other purposes. Splenosis occurs in up to 67% of patients with a history of traumatic splenic rupture.<sup>3</sup>

Splenosis was first described in 1937 by Shaw and Shafi, and the term was introduced in 1939 by Buchbinder and Lipkoff when describing an intraabdominal splenic deposit in a young woman following splenectomy for splenic rupture.<sup>4</sup> The average interval between trauma and abdominal or pelvic splenosis is 10 years (range 5 months to 32 years).<sup>5</sup>

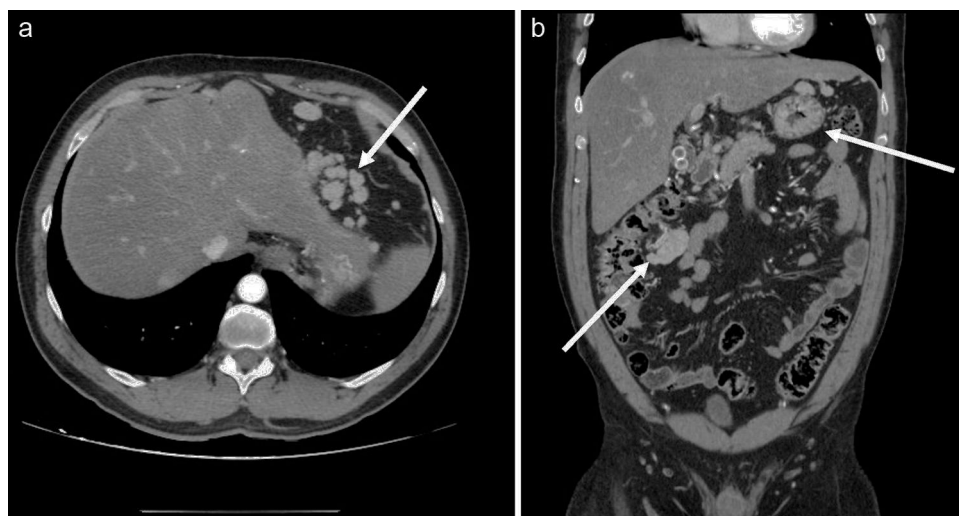
Here we present the case of a 46 years old man with a history of traumatic splenic rupture without splenectomy in 1993. He had a past history of smoking, hypercholesterolemia, and HIV infection diagnosed in 2008, under HEART treatment and with good clinical and analytical control.

A lumbar CT scan was performed in March 2015 to assess chronic lower backpain. Images showed the presence of a gastrohepatic lymphadenopathy, and nodules located adjacent to the pancreatic tail, warranting an abdominal CT scan.

Physical examination of the patient was normal, without abdominal pain or presence of palpable masses in the abdominal cavity. Laboratory tests (hemoglobin 15.90 g/dL, red cell count  $4.88 \times 10^{12}/L$ , platelets 321,000/mL, bilirubin 0.4 mg/dL, lactate dehydrogenase 161 U/L) were within normal parameters. Tumoral marker CA 19.9 (carbohydrate antigen 19.9) level was within normal range (15.98 U/mL).

The CT study (May 2015) showed multiple intraperitoneal nodules of various sizes, located in left and right hypochondriac regions, epigastric region, subdiaphragmatic region, and gastrohepatic, compatible with splenosis (Fig. 1). An MRI scan was recommended for diagnostic confirmation. Images show multiple pseudonodular lesions located intraperitoneously, which are consistent with the diagnostic approach. A gastroscopy was also performed, with normal results, ruling out the presence of masses.

Due to the increase in imaging studies performed for diagnostic purposes, incidental findings are acquiring greater importance. When imaging studies of a lesion in a patient with splenic trauma or splenectomy are compatible with



**Figure 1** Multiple intraperitoneal nodules of various sizes. Morphologically and size wise they are compatible with splenosis (white arrows).

normal splenic tissue, the diagnosis of splenosis should be considered.

Pre-contrast MRI shows a homogeneously hypointense lesion on T1-weighted images with a hypointense rim around the mass, and hyperintense on T2-weighted images. After contrast administration, the lesion is hyperintense as compared to the liver. The presence of a rim surrounding the lesion is a characteristic finding of splenosis. The rim represents a thin layer of fat or fibrous capsule, showing low signal intensity on T1- and T2-weighted images.

It is believed that splenosis is a fairly common phenomenon of splenic injury, with a reported occurrence in 16–67% of patients with splenic trauma or surgery history.<sup>6</sup> Because of the increase in prevalence of abdominal trauma due to all kinds of accidents, abdominal splenosis may appear more frequently in clinical practice than in the past.<sup>7</sup> Splenosis has scarce clinical significance. Patients may occasionally present with unspecific abdominal pain, enlarged abdominal mass, intestinal obstruction, gastrointestinal hemorrhage, or hydronephrosis.<sup>8</sup> Occasionally, these findings can be confused with malignant pathology, leading to invasive techniques, frequently unnecessary.

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Maria Antonia Payeras Capó<sup>a,\*</sup>, Jaume Ponce Taylor<sup>a</sup>, Alicia Erimeiku Barahona<sup>a</sup>, Carmen de Juan García<sup>b</sup>, Carmen Garrido Duran<sup>a</sup>

<sup>a</sup> Department of Gastroenterology, Hospital Universitario Son Espases, Palma de Mallorca, Spain

<sup>b</sup> Radiology Hospital Universitario Son Espases, Palma de Mallorca, Spain

\* Corresponding author.

E-mail address: [marian.payeras@gmail.com](mailto:marian.payeras@gmail.com)

(M.A. Payeras Capó).

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## Teniasis en una niña española



### Taeniasis in a Spanish girl

El ser humano, único hospedador definitivo, contrae la teniasis por consumo de carne, cruda o poco cocinada, de cerdo o de vaca infectada con el cisticerco, que necesita entre 2 y 3 meses hasta convertirse en tenia adulta en el intestino<sup>1</sup>. En España, esta infección es autóctona, aunque de manera aislada y poco frecuente, por lo que no se considera un problema de salud pública, ya que se han detectado citas esporádicas a partir de casos importados procedentes de países de baja renta<sup>2,3</sup>.

En abril de 2015, a una niña de 8 años, natural de Valencia (España), se le observan unas estructuras blanquecinas en la ropa interior. Se le administra mebendazol a la dosis de 20 mg/ml durante 4 días, repitiéndolo a las 2 semanas, por prescripción médica contra lombrices. En julio y en octubre de 2015, se repite dicho tratamiento sin desaparición de dichas estructuras. Se le receta metronidazol a la dosis de 125 mg/5 ml, 3 veces al día durante una semana. Como las estructuras persisten, se consulta a otro pediatra quien recomienda la administración de pirantel, a la dosis de 11 mg/kg en dosis única durante 4 días y un análisis coprológico. El análisis de la niña se lleva cabo en noviembre

de 2015, dando como resultado la parasitación por «tenia canina», *Dipylidium caninum*. El pediatra recomienda el tratamiento con niclosamida, o bien con praziquantel. La farmacéutica, por lo inusual del medicamento solicitado y al tratarse de un medicamento extranjero, la remite al Departamento de Parasitología de la Facultat de Farmàcia de la Universitat de València, donde se analizan 3 muestras fecales seriadas en el tiempo y 3 cintas de Graham en días consecutivos.

La observación macroscópica de varias estructuras blanquecinas aisladas, de aspecto alargado (11,4–13,7 × 4,0–4,4 mm), fue sugestiva de proglótides de *Taenia*. En el examen de la materia fecal se evidenció la presencia de numerosos huevos esféricos, de 35,0–37,5 μm de diámetro, con cubierta gruesa, de color pardo amarillento, que estaba estriada en forma radial y que contenía un embrión con 6 ganchos (hexacanto), llamado oncosfera. El test de Graham resultó negativo para huevos de oxiuro (*Enterobius vermicularis*), aunque se evidenció la presencia de numerosos huevos de *Taenia* (fig. 1). El análisis microscópico de un proglótide, montado con lactofenol de Amann entre 2 portaobjetos, constató la presencia de numerosas (más de 15) ramas laterales primarias a cada lado del eje uterino central (fig. 2), con la posición lateral del poro genital, lo que determinó el diagnóstico de *Taenia saginata*/*Taenia asiatica*. Los