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PHOTO QUIZ

An accidental finding of multiple abdominal and pelvic tumours

R. Duivenvoorden[1], J.J.J. de Sonnaville[1], J.M. van Muiswinkel[2]*

Department of [1]Internal Medicine and [2]Radiology, Tergooiziekenhuizen, Hilversum, the Netherlands.
*corresponding author: e-mail: hj.m.vanmuiswinkel@tergooiziekenhuizen.nl

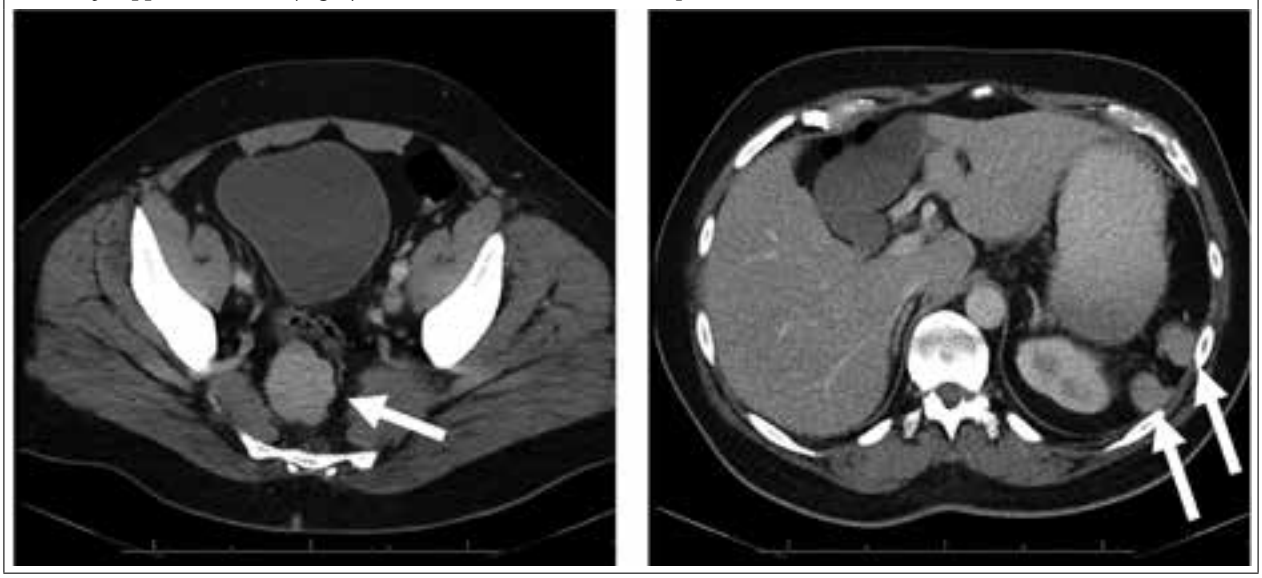
CASE REPORT

A 44-year-old man with a history of a splenectomy in childhood due to a traumatic splenic rupture presented at the emergency department with fever, abdominal discomfort, and pain in the left buttock. He received pneumococcal vaccinations every five years. Upon physical examination painful flexion of the left hip was observed, while abdominal examination was normal. A contrast enhanced computed tomography (CT) of the abdomen and pelvis showed fluid around the left hip joint, which was aspirated, cultured and diagnosed as a septic arthritis with *Streptococcus agalactiae*. In addition, the CT revealed three tumours with homogenous contrast enhancement in the left upper abdomen with diameters of 2.5 to 3.5 cm, and a tumour in the pelvis of 7.6 x 4.3 cm (*figure 1*).

WHAT IS YOUR DIAGNOSIS?

See page 375 for the answer to this photo quiz.

Figure 1. *Contrast enhanced CT images showing tumours with homogeneous contrast uptake in the pelvis (left) and in the left upper abdomen (right). The tumours are indicated by the white arrows*



ANSWER TO PHOTO QUIZ (PAGE 371)

AN ACCIDENTAL FINDING OF MULTIPLE ABDOMINAL AND PELVIC TUMOURS

DIAGNOSIS

In our patient, who was admitted with a septic arthritis, we made an accidental finding on CT of multiple tumours in the abdomen and pelvis. The tumours had a homogenous contrast enhancement, with a Houndsfield unit value of 86 after contrast administration. The subsequent ultrasound examination corroborated with the homogenous aspect of the tumours on CT imaging. We established the diagnosis of splenosis based on the fact that the patient had a history of a traumatic splenic rupture and splenectomy, the masses had a similar attenuation on CT to the expected appearance of otherwise normal splenic tissue, and the tumours had a homogenous aspect on CT as well as ultrasound imaging. Based on the combination of these findings malignant disease is unlikely.

Splenosis is a rare benign condition of heterotopic autotransplantation of splenic tissue in another anatomic compartment that can occur after splenic rupture or splenectomy.[1] The cause of splenosis most likely pertains to direct seeding or haematogenous spread of splenic tissue. It occurs most frequently in the abdominal and pelvic cavities, but can also be found in other locations, such as in the liver, kidney, pancreas, thorax, cerebrum or subcutaneous tissue[1,2] Splenosis differs from accessory spleens, which are congenital and supplied by the splenic artery, and usually found near the splenopancreatic or gastrosplenic ligament. Splenosis is often found incidentally, but can also present symptomatically, for example with gastrointestinal bleeding, haemoptysis, chest pain, bowel obstruction or hydronephrosis.[1] It can be challenging to differentiate splenosis from malignant disease based on CT and ultrasound imaging studies.[3] Therefore, the medical history is pivotal in guiding the diagnostic process. If the diagnosis remains unsure, nuclear scintigraphy using heat damaged red blood cells tagged with technetium-99 can be performed to establish a definite diagnosis, as splenic tissue has a high uptake of damaged erythrocytes.[4]

Our patient developed septic arthritis, which raises the question whether splenic tissue in splenosis is functional or not? Connell *et al.* recently reviewed the literature on this topic and discussed that autotransplanted splenic tissue has a different microanatomy, with less white pulp, and does not have the phagocytic capacity of normal splenic tissue.[5] Multiple case series have reported fatal pneumococcal and meningococcal septicaemia despite the presence of splenosis.[5] Therefore, splenosis should not be considered protective against infection. Post-splenectomy patients with signs of infection should be treated aggressively, regardless of the presence of splenosis.

REFFERENCES

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