

CLINICAL IMAGE

Clinical presentation and management of atraumatic splenic rupture

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Email: herawaty.sebahang.chum@ssss.gouv.qc.ca**Key Clinical Message**

Atraumatic splenic rupture is a rare, but well-documented and life-threatening clinical entity that is often misdiagnosed. Clinicians should include this entity in their differential diagnosis using clinical judgement even in the absence of a history of trauma.

KEYWORDS

atraumatic, pathologic, splenic rupture, spontaneous

A 40-year-old woman known for temozolomide-induced pancytopenia was admitted to the hospital for severe abdominal pain without a history of trauma. A computed

tomography (CT) scan of the abdomen (Figure 1) revealed a large hemoperitoneum and an important perisplenic hematoma. The interventional radiologist performed a



FIGURE 1 Coronal CT scan showing hemoperitoneum, notably around the liver, and the perisplenic collection



FIGURE 2 Macroscopic picture of the enlarged spleen

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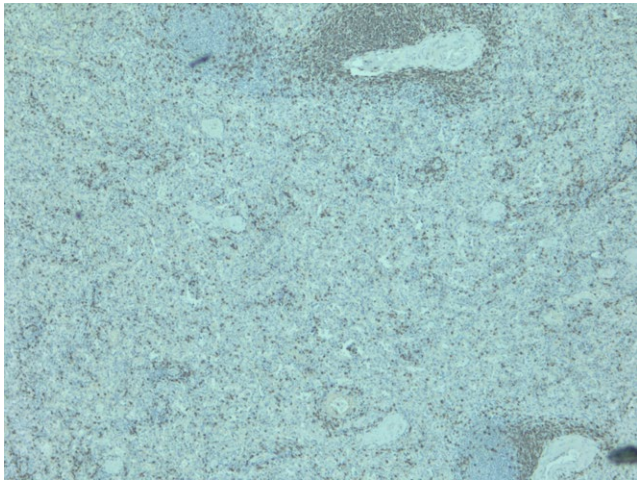


FIGURE 3 Immunohistochemical staining for selective imaging of the white pulp (shown slide illustrates CD3 staining)

transcatheter embolization of the superior polar artery as a temporary measure allowing for adequate hemodynamic resuscitation. The hemoglobin level did not stabilize after eight units of packed red blood cells, and the patient was evaluated by the surgical team. The general surgeon opted for a total splenectomy by laparotomy which relieved the patient of her symptoms and allowed discharge. Macroscopic examination of the spleen (Figure 2) revealed a grade IV laceration of the spleen as well as a subcapsular hematoma. Microscopic examination (Figure 3) revealed expansion of the red pulp, but with absence of metastatic lesions or lymphoproliferative processes. This constellation of findings in addition to histopathologic change is consistent with atraumatic-pathologic splenic rupture.

Atraumatic splenic rupture is an uncommon, well-described,¹ and often misdiagnosed² presentation with severe consequences if unrecognized. An absence of a history of trauma does not rule out splenic rupture and defines the atraumatic entity. Treatment generally consists of total splenectomy in prevision of functional compromise.¹ Subsequent histologic examination will help determine whether the rupture is atraumatic-pathologic or atraumatic-idiopathic.¹ The latter is rarer, comprising 7% of atraumatic splenic rupture

cases, and remains a diagnosis of exclusion.¹ The lack of a predisposing factor³ and a normal histologic examination discriminate the atraumatic-idiopathic entity from the atraumatic-pathologic one.

CONFLICT OF INTEREST

None declared.

AUTHORSHIP

ANS: involved in literature search and the design and drafting of the manuscript. FS, HS: involved in clinical assessment, acquirement of images and manuscript design and revision for pertinent input.

INFORMED CONSENT

The patient has provided consent for the publication of the images. The patient's identity has been kept confidential.

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