Splenic rupture after videothoroscopic procedure: An unusual complication conservatively managed

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Splenic rupture after videothoroscopic lung procedures is a very rare event. We report a case in which conservative management including embolization therapy provided effective treatment.

CASE REPORT

A 51-year-old patient was admitted to our unit after the incidental detection of a pleural mass (pleural solitary fibrous tumor) during radiologic examinations for impacted urolithiasis. The patient underwent video-

assisted thoracoscopic resection of the pleural mass under general anesthesia. Surgery only lasted 21 minutes and was uneventful. The tumor was resected with a single stapler fire and extracted within an endobag. Chest drainage was removed on postoperative day 1.

Results of chest radiography performed before discharge on postoperative day 2 were unremarkable, but the hemoglobin level dropped to 8.0 g/dL from a preoperative level of 14.1 g/dL. Physical examination of the chest did not show significant findings, and the abdomen was soft with mild tenderness on deep palpation. The patient passed normal stools after surgery. A repeated check of hemoglobin level after 4 hours confirmed the significant hemoglobin drop to 7.6 mg/dL; nonetheless, the patient was in hemodynamically stable condition.

Abdominal computed tomographic scan was requested and showed a 13 × 6-cm subcapsular hemorrhage of the spleen with moderate amount of free intraperitoneal fluid. We decided on a nonoperative treatment and proceeded to perform angiography with embolization of the spleen. The procedure was uneventful, and the ensuing radiographic examinations (upper abdomen contrast-enhanced

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FIGURE 1. Computed tomographic and echocardiographic controls show stability of the subcapsular hematoma with no active sources of bleeding.

ultrasonography¹ and abdominal computed tomography) showed no changes in the subcapsular hematoma with no active sources of bleeding (Figure 1). After a few days of observation in the hospital, the patient was discharged and followed up as an outpatient, with repeated follow-up abdominal ultrasonography showing normal resolution of the hematoma.

DISCUSSION

Splenic rupture after videothoroscopic lung procedures is a very rare event. In the only case previously described in the literature,² an emergency splenectomy was required after a splenic injury occurred during video-assisted pulmonary resection of a nonmalignant tumor. The suggested cause of injury was a transdiaphragmatic blunt trauma with intact diaphragm.

In our case we did not detect any direct evidence of a laceration of the diaphragm at the end of the videothoroscopic procedure, and the ensuing radiographic examinations also yielded negative results. Transdiaphragmatic blunt trauma to the spleen was clearly caused by the positioning of one of the thoracoscopic ports (the lowest was inserted in the ninth intercostal space posteriorly) or by the insertion of the mechanical suture device (we have used the lowest one for the stapler), which can be troublesome if the pulmonary lesions are in close proximity to the chest wall.

Our trauma center experience suggests that conservative treatment was the ideal choice, particularly in managing a blunt trauma to parenchymal³ organs, for which angiographic arterial embolization is the preferred solution.^{4,5}

In conclusion, splenic injuries occurring during thoracic surgery procedures may be safely managed conservatively in the presence of hemodynamic stability. Transdiaphragmatic insults to the spleen are likely to be single and localized and thus easy to control with an endovascular arterial embolization. Splenectomy should be the last viable option when conservative treatment fails or in case of sudden hemodynamic instability.

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Pyomyositis of the chest wall presenting with empyema thoracis

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Pyomyositis is an inflammatory condition of the skeletal muscle. It was first described by Scriba in 1885 as a disease endemic to the tropics, hence the term *tropical pyomyositis*. Until recently, pyomyositis was considered unusual in the temperate zone.^{1,2} Although any skeletal muscle may be involved, pyomyositis has

predilection for large muscle masses of the body. Multiple muscle involvement occurs in 12% to 60% of patients.

There are 3 stages of presentation. The first stage is the “invasive stage,” with minimal signs of inflammation. There may be muscle pain, fever, and mild leukocytosis. The second stage is the “suppurative stage,” between 10 and 20 days from the onset of symptoms. Signs of inflammation are more pronounced, with swelling, tenderness, and fever. Needle aspiration yields purulent exudate. The final stage is the “septicemic stage,” when the patient is acutely ill, with high fever and toxicity. Occasionally, septicemia and coma may be seen.

Computed tomographic (CT) scan and magnetic resonance imaging are the best imaging techniques for early diagnosis and follow-up of the patient.

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