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Case Report

An unusual case of delayed rupture of the spleen associated with pectus excavatum

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CASE REPORT A 34 year old woman presented as a surgical emergency with left upper quadrant pain of sudden onset which had awoken her from sleep. The pain radiated to her left shoulder tip. No other symptoms were noted. There was no history of trauma nor medical history of note. Interestingly she remarked that she had had a similar, but self-limiting episode of pain some two months previously after sitting bolt upright following a nightmare.

On examination, early signs of circulatory shock were evident with a pulse of 84 bpm and a blood pressure of 90/50mmHg. She displayed marked tenderness with rebound and guarding on abdominal palpation. Bowel sounds were attenuated. A moderate degree of pectus excavatum was also noted. Preliminary tests revealed a mild leucocytosis of 11.8×10^3 cells/ml. Abdominal and chest radiographs were unremarkable. Pregnancy testing was negative. A tentative diagnosis of a ruptured spleen was made and the patient proceeded to laparotomy. This revealed a large haematoma in the superior pole of the spleen with associated splenic rupture. A small splenunculus was also noted. Splenectomy was performed and the patient made an uneventful post-operative recovery. Gross and histological analysis of the spleen revealed areas of fresh recent haemorrhage interspersed with areas of organization, features in keeping with 'old' and 'new' bleeds. No other abnormality was noted.

Further haematological assessment of the patient did not reveal any evidence of haemopoietic or lymphopoietic disorders. Testing for EBV was negative. One year following surgery she remains well.

DISCUSSION

Delayed splenic rupture is a well recognized sequel of blunt left lower chest or abdominal trauma,[1] usually manifested as 'an acute abdomen' with profuse intraperitoneal bleeding. The prevention of this serious and possible life threatening complication is the cause of ongoing debate. No cases of primary spontaneous splenic rupture have been reported in the literature. All have been secondary to trauma, an underlying infective process, or malignancy. Such pathological processes as infectious mononucleosis [2] and lymphoma [3] account for some of these cases. The majority by far are secondary to trauma, usually severe blunt abdominal trauma but rupture following colonoscopic procedures and sporting injuries are well documented.

There have been no reports in the literature of pectus excavatum as an risk factor for visceral injury in abdominal trauma but as the distance between the costal margin and the posterior abdominal wall is reduced in this chest wall deformity it is likely that the upper abdominal viscera could be more easily damaged.

We postulate that the forces produced by the body upon the spleen in sitting up suddenly were

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enough to cause splenic damage and subsequent rupture.

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