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Torsion of wandering spleen presenting as acute abdomen: A case report

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ABSTRACT

Wandering spleen is a very rare condition characterized by the absence or weakness of one or more ligaments holding the spleen in its normal position. "Acquired" wandering spleen may occur during adulthood due to injuries or other underlying conditions that may weaken the ligaments that hold the spleen in its normal position. Torsion of a wandering spleen is an unusual cause of an acute abdomen and is rarely diagnosed preoperatively. Associated torsion of the distal pancreas is even more uncommon. We report a patient with torsion of a wandering spleen and distal pancreas presenting as acute abdomen with lower abdominal lump who was further diagnosed and managed.

Key words: Ectopic spleen; Wandering spleen; Splenectomy; Torsion; Acute Abdomen; Infarction

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INTRODUCTION

Wandering spleen is a rare surgical entity with <500 cases reported till now.[1] In the adults, most cases are seen in women.[2] Clinical diagnosis is difficult due of lack of symptoms, unless splenic torsion has occurred and clinical symptomatology of acute abdomen results. Radiological techniques help in confirmation of diagnosis. Splenectomy is the treatment due to complications of splenic infarction.

CASE PRESENTATION

A 43-year-old woman presented to the outpatient department (OPD) with a complaint of acute abdominal pain and distension. On physical examination, a palpable lower abdominal lump with diffuse abdominal tenderness more toward the left side was present. The patient came to OPD with contrast-enhanced computed tomography (CECT) report mentioning empty splenic fossa, ectopic enlarged infarcted spleen seen at left para-median lower abdomen and pelvic region along with torsion of tail of pancreas and splenic vessels (Figures 1 and 2). Laboratory results were within normal limits. The patient underwent laparotomy with intraoperative findings of ectopic severely congested spleen (Figure 3) and torsion of vascular pedicle with splenic hilum facing posteriorly with normal tail of pancreas lying in lower abdomen. Careful detorsion of vascular pedicle was done, tail of pancreas was detached from the splenic hilum, vascular pedicle was tied, and then splenectomy was performed (Figure 4). The patient was discharged 5 days later. Both the intraoperative and

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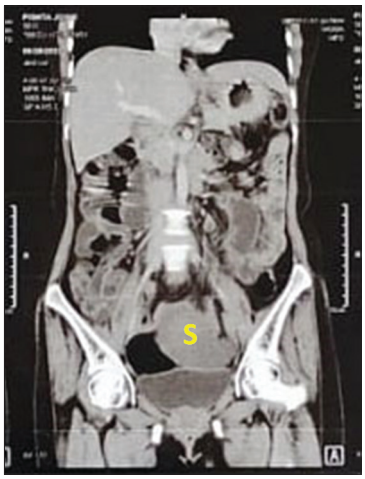

Figure 1: Computed tomography scan in coronal plane defining infarcted wandering spleen in pelvis (S: Spleen)

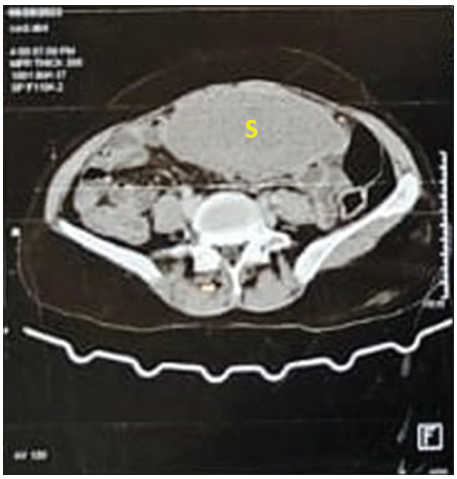

Figure 2: Computed tomography scan through pelvis demonstrating low-density mass in pelvis (S: Spleen)

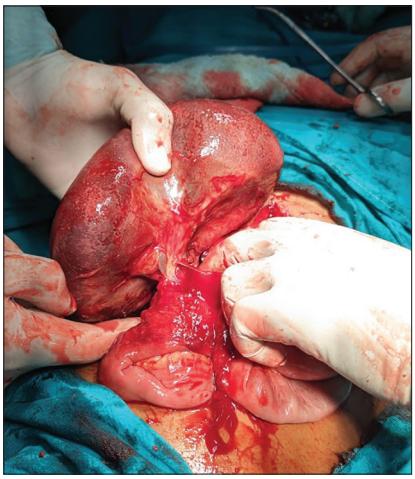

Figure 3: Intraoperative picture demonstrating congested enlarged ectopic spleen lying in lower abdomen and pelvis

post-operative course were uneventful. Pneumococcal and meningococcal prophylaxis was given.

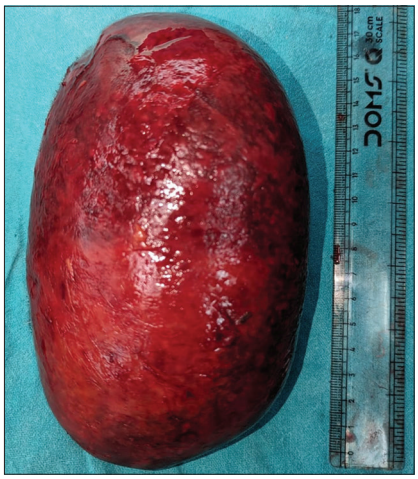

Figure 4: Post-splenectomy specimen showing congested spleen of size 17×10 cm

DISCUSSION

Wandering spleen with involvement of distal part of pancreas is very rare. The spleen has gastrosplenic and lienorenal ligaments to hold it in the left hypochondrium. The etiology can be divided into congenital and acquired. Congenital cause can be attributed to lack of development of the primary ligamentous attachments of the spleen. The acquired form is due to laxity of these ligaments which may be either because of hormonal changes, splenomegaly, trauma, etc. where laxity of ligamentous support allows it to twist on its own pedicle.[3]

Among females, it is more common in older age groups. It is due to hormonal effect on the ligaments in multiparous women or injuries and other similar conditions were found to cause the ligaments to weaken, such as connective tissue disease or pregnancy.[4]

The mode of treatment finally depends on the vascular status of the spleen. In case of non-infarcted wandering spleen, splenopexy is the optimal treatment. In this case, as there was evident splenic ischemia, splenectomy was performed in our patient.

CONCLUSION

Wandering spleen is a very rare surgical entity and quite challenging to diagnose clinically. Radiological imaging such as USG and CECT abdomen is essential to identify the condition. Based on imaging studies, vascular status of the spleen is identified. If spleen is viable with no thrombosis, splenopexy is performed. If splenic torsion with infarction is present, then splenectomy is advised with prophylactic antibiotics and pneumococcal and meningococcal vaccine given to prevent post-splenectomy sepsis.[5]

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Authors Contribution:
SP, PS, and GS- Definition of intellectual content, literature survey, review manuscript, and treating surgeon; **AKY and SK-** Prepared first draft of manuscript, manuscript preparation and submission of article, editing, and manuscript revision.

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