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SPLENIC TORSION OF A WANDERING SPLEEN IN A PEDIATRIC PATIENT WITH MUMPS: A RARE CASE REPORT

Pediatric Surgery

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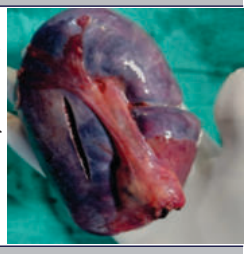
ABSTRACT

Wandering spleen is a rare congenital anomaly characterised by lack of ligamentous attachment to diaphragm, colon and retroperitoneum. The embryological basis of this is probably related to failure of development of spleen ligaments from dorsal mesentry with a prevalence of 0.2 %.. Clinical presentation can vary widely, from completely asymptomatic cases to acute abdominal complaints like persistent pain and vomiting, most commonly resulting from splenic torsion. Since these symptoms are nonspecific, imaging studies are essential for diagnosis, with computed tomography (CT) playing a central role in confirmation.The standard management is splenopexy (spleen fixation), while splenectomy is indicated if splenic infarction is present. We report the case of a 9-year-old female patient who was admitted to the hospital with acute viral illness mumps and acute abdominal pain, accompanied by vomiting and fever, without signs of shock. computed tomography of abdomen revealed splenic torsion and the patient subsequently underwent splenectomy. One week after surgery, the patient was discharged from the hospital in stable condition.



KEYWORDS

Splenic Torsion, Wandering Spleen, Mumps, Splenopexy, Splenectomy

INTRODUCTION

Wandering spleen is a rare condition in which the spleen is not located in its usual anatomical position but is freely mobile and often found lower in the hypogastrium or pelvis. The cause of this condition is lack of ligamentous to diaphragm, colon and retroperitonium. This condition presents with a wide range of clinical symptoms, from asymptomatic cases to varying degrees of acute abdominal pain. The most common complication is torsion, which occurs in approximately 50 % of wandering spleen cases at the time of diagnosis and is the cause of abdominal pain in these patients. In cases of torsion, up to 82 % of patients undergo splenectomy, as splenic preservation is often not possible. Imaging modalities are crucial in diagnosing asymptomatic cases and assessing complications such as splenic torsion, infarction, abscess, variceal hemorrhage, and pancreatic tail necrosis.

We report a case of mumps with a wandering spleen complicated by torsion, splenic infarction, and necrosis.

Case Presentation

A 9-year-old female admitted in paediatric unit with a diagnosed case of acute viral illness Mumps having mild abdominal pain, fever and sore throat. On examination abdomen was soft, non-tender and mobile mass present in left lower abdomen. On laboratory investigation serum amylase was raised but serum lipase was with in normal limit. USG abdomen was done for pain abdomen which revealed spleen in left hypogastrium moving upto pelvis. On CECT abdomen wandering spleen with splenomegaly was noted. Splenopexy was advised for wandering spleen. On day 3 of admission patient had severe abdominal pain and vomiting. On examination abdomen was distended with tenderness in left lower abdomen. Repeat CECT abdomen confirmed a twisted vascular pedicle (whirl sign) and infarction of the spleen, consistent with splenic torsion. The patient was taken for emergency laparotomy. Intraoperatively a completely infarcted spleen was found in the lower abdomen with 720° torsion of its vascular pedicle. Detorsion was done and observed for circulation. There was no evidence of blood flow. Splenectomy was done due to irreversible ischemia. Histopathology confirmed hemorrhagic infarction of splenic tissue. The postoperative course was uneventful. The patient was vaccinated against encapsulated organisms for prevention of opportunistic infection.

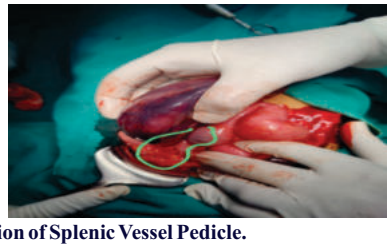


Fig 1. Torsion of Splenic Vessel Pedicle.

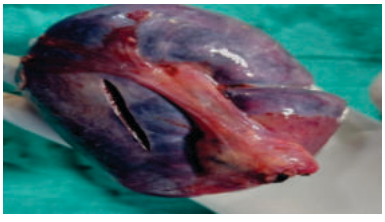


Fig 3. Ligated Twisted Pedicle

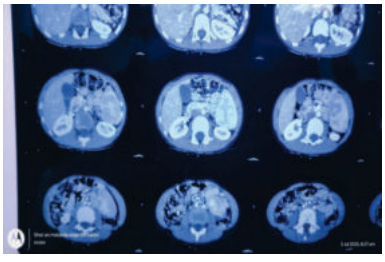


Fig 4. CT Angiography Suggestive of Wandering Spleen with Splenic Torsion and Infarction

DISCUSSION

Wandering spleen is a rare congenital anomaly characterised by lack of ligamentous attachment to diaphragm, colon and retroperitoneum. The embryological basis of this is probably related to failure of development of spleen ligaments from dorsal mesentry. The association with viral infections like mumps has not been clearly documented but could theoretically relate to increased intra-abdominal pressure from vomiting, systemic inflammation and splenomegaly, precipitating torsion in a wandering spleen. Imaging plays a crucial role, especially CECT abdomen which can demonstrate the whirl sign and lack of perfusion. Splenopexy is done in viable spleens, but in cases of infarction of spleen, splenectomy is the treatment of choice. Timely surgical intervention is essential to prevent splenic infarction leading to splenectomy.

CONCLUSION

This case highlights the rare but serious complication of splenic torsion in a child with a wandering spleen, likely precipitated by an acute viral illness such as Mumps. The clinical presentation was nonspecific, mimicking other causes of acute abdomen, which emphasises the importance of maintaining a high index of suspicion in paediatric patients presenting with abdominal pain and a palpable mass. Prompt imaging, particularly CECT abdomen is essential in diagnosing the condition. Timely surgical intervention like splenopexy can save the

spleen. In acute emergency situation like torsion of spleen to prevent life-threatening complications such as infarction splenectomy is done. This case underscores the need for early diagnosis and management of wandering spleen, especially in the setting of intercurrent viral illness that may increase the risk of torsion due to splenomegaly hence splenopexy should be done at the earliest to prevent further complication.

Decleration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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