

INCIDENTAL SPLENUNCULUS FOLLOWING SPLENIC TRAUMA: REPORT OF A CASE

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INTRODUCTION:

Incidental finding of splenunculus in a splenic trauma is rare. Its diagnosis is not often made before surgery because of the emergency situation posed to the surgeon by the trauma.

PRESENTATION OF CASE:

A 9-year-old male who presented with a history of sudden generalized abdominal pain and progressive abdominal distension following a fall from height. He was pale. His extremities were cold and clammy. His pulse rate was 110 per minute and blood pressure was 90/50 mmHg.

He was resuscitated and had exploratory laparotomy a few hours after presentation. The findings were haemoperitoneum, ruptured spleen with hila vascular laceration and a splenunculus at the gastro-colic omentum. He had splenectomy, analgesics and antibiotics. His outpatient follow-up has been uneventful.

DISCUSSION:

This is to report a case incidental splenunculus in trauma in 9 year old patient with the hope of increasing awareness.

CONCLUSION: *Splenunculus in trauma, though rare but can occur. Careful resuscitation and skilful surgical intervention will improve outcome.*

KEY WORDS: *Incidental, Splenunculus, Trauma.*

INTRODUCTION

Splenunculus is a rare finding in a trauma patient. Ectopic splenic tissue results from two etiologies : (i) accessory spleen or splenunculi which is congenital, and (ii) splenosis which is acquired. Accessory spleen is a congenital ectopic splenic tissue found in 10–44% of all necropsies¹. Its most common location is hilum of the spleen and can occur in close proximity to the tail of the pancreas. Mesentery, omentum and peritoneum are the rare sites. This is a report of a case of splenunculus presenting as incidental findings, localized in omentum in blunt abdominal trauma patient aged 9 years, managed by the authors in LeBIIBS Specialist Hospital LTD, Port Harcourt, Nigeria. This we hope will increase awareness.

PRESENTATION OF CASE:

A 9-year-old male who presented with a history of sudden generalized abdominal pain of 4 hours duration following a fall from height. He had progressive abdominal distension, nausea and vomiting. He vomited four times prior to presentation. Vomitus consisted of recently ingested meals. He had no urinary symptoms, no fever, jaundice or bleeding from any of his orifices. No previous history of surgery. Examination revealed a young man in painful distress but with cold clammy extremities. He was pale, afebrile, anicteric. His pulse rate was 110 per minute and of small volume. Blood pressure was 90/50 mmHg and respiratory rate 28 cycles per minute. His temperature was 37°C. His chest was

clear clinically. The abdomen was distended, tender and with guarding. Bowel sounds were hypoactive. Digital rectal examination revealed an empty rectum. A diagnosis of blunt abdominal injury with splenic rupture secondary to fall from height was made.

Packed Cell Volume done was 27% (9g/dl). Serum electrolyte urea and creatinine results were within normal limits. An abdominal ultrasound revealed gross haemoperitoneum with splenic rupture fig 1-3.

He was resuscitated with intravenous fluids (normal saline, dextrose in saline infusion) and transfused with two units of blood. Antibiotics were given (ceftriaxone 1gm, metronidazole 500mg). Analgesics were also given. Nasogastric tube was passed and Urethral catheterization was done to monitor urine output.

Within a few hours of admission, he had an exploratory laparotomy.

Findings were as follows: haemoperitoneum, ruptured spleen (fig4) with hila vascular laceration and a splenunculus at the gastro-colic omentum (fig 5). He had splenectomy, and continued analgesics and antibiotics. His outpatient follow-up has been uneventful.

Fig. 1. Haemoperitoneum.



Fig 2 Splenic rupture

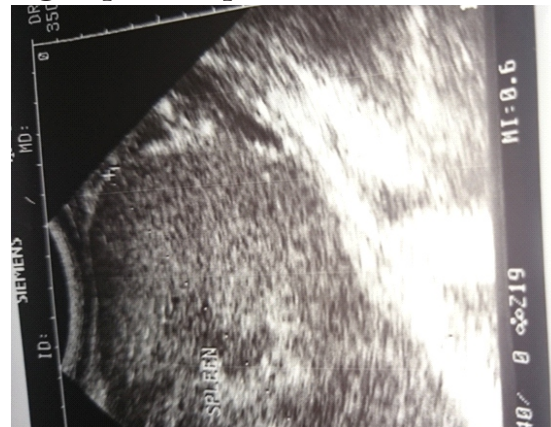


Fig 3 Splenic rupture



Fig. 4 Splenic rupture



Fig 5 Splenic rupture.

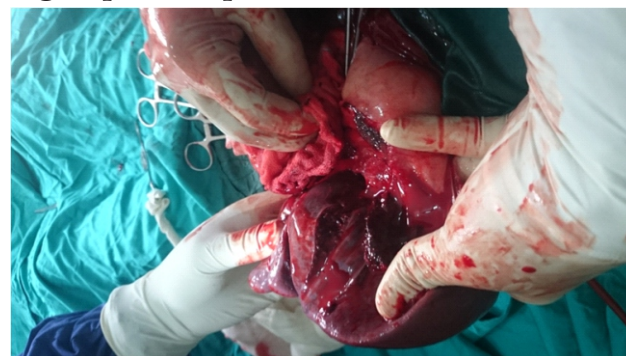
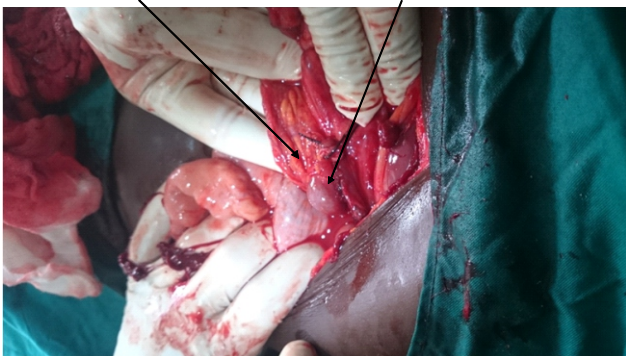


Fig 6 Splenic rupture



Fig. 7 Splenunculus.

Gastro-colic Omentum Splenunculus.



**Fig 8 Splenunculus
being pointed with a haemostat.**



**Fig 9 Splenunculus
being pointed with a haemostat.**



DISCUSSION:

Splenunculi or accessory spleen is a congenital condition seen in 10–44% of necropsies. An accessory spleen arises from the side of the dorsal mesogastrium during embryological period of development as a result of imperfect fusion of separate splenic masses. Most often there is one accessory spleen (85%) sometimes two (14%) and rarely three or more (1%). Their size is not larger than 2cm in diameter. The most common location is hilum of the spleen in gastrosplenic ligament (50%), but may be found behind the tail of pancreas (30%) or rarely within greater omentum of the stomach as in index case, mesentery of the small intestine, mesocolon, pancreas², Kidney³ and pelvis⁴ as an adnexal mass. Harsh Mohan et al⁵ reported three cases of splenunculi in the omentum, mesentery of small bowel and splenic hilum. Most of the splenunculi are asymptomatic and are discovered incidentally by abdominal ultrasound, CT scan or laparotomy during the investigation of another problem. This is when patient condition warrant such investigation. In a few cases they become symptomatic causing abdominal pain due to torsion and infarction⁶. Accessory spleen needs to be distinguished from splenosis which is an acquired condition associated with splenic trauma or surgery having incidence of 67% in these patients⁷. No prior history of trauma in our patient beside the current episode that led to his splenic rupture. This suggest a congenital cause in the index case. Splenosis presents as numerous nodules (as many as 400) in any intraperitoneal or extraperitoneal location. Splenosis nodules receive their blood supply from newly formed arteries penetrating the capsule. Histologically it is possible to differentiate splenunculi from splenosis. Splenunculi have well formed capsule, hilum, trabeculae, white pulp with Malpighian follicles having central arteriole and red pulp whereas splenosis nodule are unrounded by capsule but malpighian follicles with a central arteriole are not formed. Splenunculi are important in haematological disorders for which splenectomy is the treatment of choice. If surgeon is not able to locate or remove them at the time of splenectomy, they will undergo hyperplasia and cause recurrence of the disease. Accessory spleens resemble normal spleen in structure and in immunologic functions. So in splenectomy for non-haematologic causes accessory spleens should be preserved to prevent infection and sepsis after splenectomy. In our patient, we preserved the splenunculus since is

surgery for trauma and no evidence of haematological disorder in history, examination and investigation. However, he will be monitored clinically with respect to changes associated with the splenunculus. It is important to identify splenunculi either by ultrasound, CT scan or by ^{99m}Tc heat-denatured red blood cell scan and confirmed by histopathologic examination to avoid misdiagnosis.

CONCLUSION:

Splenunculus in trauma, though rare but can occur. Careful resuscitation and skillful surgical intervention will improve outcome. Follow up is necessary especially when the patient is very young.

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Authors declare no conflict of interest.

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