A case of splenic torsion and rupture presenting as ruptured ectopic pregnancy

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Citation: Lahiri S, Dasgupta N, Mondal AUD. A case of splenic torsion and rupture presenting as ruptured ectopic pregnancy. JSCR. 2010 10:4

ABSTRACT
Splenic torsion with rupture of spleen is an extremely rare phenomenon. The clinical picture mimics several common conditions which are causes of acute abdomen and so it is seldom detected pre-operatively. An 18 year old female patient was admitted with an acute abdomen and shock. The provisional diagnosis was of a ruptured ectopic pregnancy. Peri-operatively we found a spontaneous rupture of the spleen following torsion along with early intrauterine pregnancy. Splenectomy was carried out and patient recovered well. Our report confirms that this rare entity can present as an acute abdomen which is very difficult to diagnose preoperatively and can masquerade as ruptured ectopic pregnancy in women of childbearing age group.

INTRODUCTION
Splenic torsion of the so called wandering spleen is an extremely rare phenomenon, having an incidence of 1 in 2000 and accounts for only 2 per 1000 splenectomies. (1,2) It is very difficult to diagnose preoperatively.

CASE REPORT
An 18 year old married female patient presented to the obstetrics and gynaecology emergency unit with severe pain and abdominal distension for one day. There was no history of vomiting, constipation or fever. Her period was overdue by about 40 days when she presented in the emergency department. She had been married for 1 year and was not using any contraception. She had no previous obstetric or gynaecological history of note.

On examination she was found to be very pale and was haemodynamically unstable with an uncoridable blood pressure. Her abdomen was distended and tender, without any significant rebound tenderness. Per rectal examination was normal. Per vaginal examination showed a bulky uterus, a distended pouch of Douglas and adnexae were found to be apparently normal. A urinary pregnancy test came out to be weakly positive. As emergency ultrasonographic or other imaging facility was not available at that time a culdocentesis was done which revealed haemoperitoneum.

As patient was deteriorating rapidly, an urgent laparotomy was done with a provisional
diagnosis of a ruptured ectopic pregnancy. She was found to have about 2 litres of dark
coloured blood with clots in her abdomen. Examination of the pelvis revealed normal fallopian
tubes and ovaries but the uterus was bulky. The incision was extended upwards to explore the
rest of the abdomen. A hugely enlarged and congested spleen, transversely oriented was
found with multiple ruptures on its surface. It was delivered through the incision with great
difficulty. The hilum and splenic pedicle could not be identified initially as the spleen had
rotated three and a half times on its pedicle. The spleen showed multiple haemorrhagic areas
and looked nonviable. Therefore a splenectomy was carried out. The spleen was sent for
histopathological examination. Two units of blood were transfused peri-operatively and two
units post-operatively. The histopathology report showed features of necrosis, inflammation
and haemorrhagic areas in spleen. No tumour mass or any other significant pathology was
found.

On day 3 post-op, the patient developed bleeding per vagina. On examination she was found
to have an incomplete abortion. She further underwent a check curettage for evacuation of
retained products of conception. Following this, the patient made a full recovery

**DISCUSSION**

Splenic torsion with spontaneous rupture in a patient with early intrauterine pregnancy is an
extremely rare cause of acute abdomen. The diagnosis is extremely difficult as seen in the
case where it masqueraded as a ruptured ectopic pregnancy. The exact aetiology is unknown
but it is probably due to incomplete fixation of gastrosplenic and lienorenal ligaments which
gives rise to the so called wandering spleen. (3)

Presentation is highly variable and there are reports of this entity presenting as an acute
abdomen, abdominal mass or even as intestinal obstruction. (4,5,6) Aetiology of wandering
spleen maybe either congenital or acquired. The acquired form is usually seen in multiparous
women possibly as a result of hormonal changes in pregnancy that cause laxity of the
abdominal wall and the ligaments attached to the spleen. (7,8) Splenomegaly has been
known to elongate the splenic pedicle by traction, increasing preponderance to torsion and
splenoptosis. (9) Torsion may then cause venous congestion, further splenomegaly, elongation
of vascular pedicle and splenoptosis.

As the condition is very rare diagnosis requires a very high index of suspicion. Often there is
not enough time for radiological investigations but if possible a CT scan or ultrasound should
be done. This report brings out the importance of considering splenic torsion in the differential
diagnosis of all cases of acute abdomen, particularly when we do not have the time or facility
to carry out a full radiological evaluation.

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