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SHORT COMMUNICATION

Haemoperitoneum due to ruptured subserous uterine leiomyoma

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Background Despite being the commonest benign tumour of the uterus, fibroid uterus presenting with haemoperitoneum is rare. Bleeding usually occurs secondary to the rupture of a superficial vein [1] and occasionally due to trauma, torsion [2] or the rupture of a fibroid [3]. The condition is of great significance to general surgeons as well as gynaecologists because its onset is sudden, producing acute abdominal pain and collapse. Preoperative diagnosis is very difficult and often diagnosed as ruptured ectopic gestation or haemorrhage from a ruptured ovarian cyst or a torted ovarian cyst or general surgical causes of pain and collapse. We present a case of spontaneous ruptured fibroid uterus in a young Caucasian adult presenting as acute abdomen with collapse.

Method(s) A nulligravid 24-year-old attended the accident and emergency department (AED) with a sudden onset of worsening lower abdominal pain associated with nausea, which had lasted several hours. She collapsed whilst awaiting review at AED. The pain was like trapped wind and radiated to the back. She reported several episodes of mild self-limiting pain over the previous month. Her menstrual cycles were regular and she was not sexually active.

Finding(s) On examination, she was found to be tachycardic and hypotensive. The abdomen was distended with signs of peritoneal irritation. An urgent computerised axial tomography (CT scan) revealed gross haemoperitoneum with a large complex vascular mass behind the uterus.

The patient was resuscitated and prepared for laparotomy. At surgery, 3 L of blood was found in the peritoneal cavity. A large 130 × 100 × 140-cm-sized fibroid-type mass was seen arising from the uterine fundus and adherent to the left pelvic side wall and the sigmoid colon. This mass had partly ruptured and was found to be the source of bleeding. It was then removed and sent for histology. Haemostasis was secured and the patient made a good postoperative recovery with transfusion of blood and blood products and intensive care support. Histology of the mass was reported as a benign leiomyoma with symplastic changes.

Conclusion Uterine leiomyomata are common tumours in women of reproductive age. They may remain asymptomatic or result in menorrhagia, metrorrhagia, pain or pressure symptoms prompting treatment.

Fibroid uterus presenting as an acute abdomen is extremely uncommon. Acute abdomen as a presenting feature of fibroid uterus may be due to torsion of subserous fibroid, red degeneration, torsion of the uterus along with the fibroid and sarcomatous degeneration. Sudden massive intraperitoneal haemorrhage as reported in our case is very rare. A review by Akahira et al. [4] reports only 50 cases before 1961 and six additional cases by 1997. A second review by Jain et al. [5] cites seven cases between 1994 and 2004. This usually results due to the rupture of a dilated vein over the surface of a subserous fibroid. In the majority of these cases, a preoperative diagnosis is not made. In only 4 out of the 53 cases reviewed was the correct diagnosis possible [1].

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Imaging modalities are useful in aiding the diagnosis. Ultrasound is a useful tool as it can be performed at the bedside of an unstable patient; however, it is not specific in diagnosing the source. Magnetic resonance imaging is highly accurate in evaluating the size, number and presence of degeneration. However, it requires a stable patient and may be difficult to perform in a timely manner. Computed axial tomography and magnetic resonance imaging can both identify the source of haemoperitoneum [6]. Computed axial tomography was useful in our patient in order to identify the haemoperitoneum and the pelvic mass.

Haemoperitoneum due to spontaneous rupture of fibroid itself is more uncommon. We believe that this is the first case of spontaneous rupture of a subserous fibroid without any degenerative changes in a young woman. LaCoursiere Chin [7] have reported what they believed as the first case of haemoperitoneum with spontaneous rupture of a degenerating atypical pedunculated fibroid in a 45-year-old. Traumatic avulsion and traumatic rupture of fibroid have been reported [2, 3]. Large subserous fibroids can remain asymptomatic for a long time, but can occasionally result in life-threatening complications like rupture of superficial vein, torsion and rupture of fibroid itself. Hence, it is debatable whether they should be treated even when they are asymptomatic.

The management of these cases involves surgery and supportive treatment. The definitive surgical treatment is guided by the patient's age, parity and general condition. It can be either myomectomy, as in our case, or total hysterectomy. This case highlights the fact that although it is an uncommon diagnosis, gynaecologists should be aware of this condition and think laterally when faced with emergency situations.

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Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.