CASE REPORT

Simultaneous bilateral torsion of the adnexae in an adult female without any history of ovarian stimulation

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SUMMARY

Simultaneous bilateral adnexal torsion is very rare especially in adults. There have been few cases reported in children with only one previous case reported in adults since 1984, which was complicated by entanglement of both adnexae. In adults, the use of ovarian stimulation for treatment of infertility can increase the risk of ovarian torsion. We report the second case of simultaneous bilateral adnexal torsion in an adult female without follicular stimulation.

TREATMENT

She underwent emergency laparotomy through a transverse suprapubic incision. A left-twisted ovarian cyst measuring 11×10×10 cm was found with gangrenous left tube and ovary and was twisted three times on its own pedicle. The left adnexae was unsalvageable and a left salpingo-oophorectomy was performed. There was a right dermoid cyst measuring 7×8×8 cm twisted twice. It was untwisted and removed conserving the right ovary.

CASE PRESENTATION

A 24-year-old woman, para 1, presented to the accident and emergency department with left iliac fossa pain. The pain was intermittent and stabbing in nature. There was no radiation. She had no urinary or bowel symptoms. The pain was not associated with nausea or vomiting. Her last menstrual period was 13 days before. Her menstrual cycle is usually regular with no intermittent bleeding. She did not have any smear tests in the past. She was using barrier methods for contraception. She had no significant medical history and there was no family history of any gynaecological problems.

On examination she was in severe pain; her observations were all within normal range (temperature 37 °C, blood pressure 118/78 mm Hg, heart rate 70 bpm). Her abdomen was soft; she had bilateral iliac fossa tenderness. There was no guarding or rebound tenderness. Speculum examination revealed no abnormalities. On bimanual vaginal examination the uterus was anteverted, normal size and non-tender. There was severe right-sided adnexal tenderness on bimanual examination.

INVESTIGATIONS

Pelvic ultrasound scan showed a normal size anteverted uterus with endometrial thickness of 9.7 mm. There was a large ill-defined mass measuring 10.5×7.5×8.5 cm within the right iliac fossa (figure 1). Ultrasound appearances were suggestive of a large dermoid cyst possibly with torsion. There is another dermoid cyst on the left measuring 7.9×5.4×7.9 cm (figure 2). There was also a moderate amount of free fluid in the pelvis.

Her haemoglobin was 12.7, white blood cell count of 11.9 and platelets of 372. Her urea and electrolytes and liver function tests were within normal limits and serum beta subunit of human chorionic gonadotropin was <1.

OUTCOME AND FOLLOW-UP

The patient had an uneventful postoperative recovery and was discharged well home 4 days later. No follow-up was required.

DISCUSSION

Adnexal torsion is a potentially lethal gynaecological emergency that requires prompt diagnosis and management to salvage ovarian function and fertility and avoid adverse consequences. Doctors should have high index of suspicion for ovarian pathology, including torsion, when assessing females with acute abdominal pain. Involvement of both ovaries simultaneously is a rare event. Very few cases of bilateral adnexal torsion are reported in the medical literature and most are in women using ovarian stimulating drugs. We report an unusual case of bilateral adnexal cysts with torsion in a young woman who had not received any gonadotrophin stimulating drugs.

Adnexal torsion can affect any age group but it mainly affects women of reproductive age. About 80% of ovarian torsion occurs in women under the age of 50 years with the greatest incidence in women aged 20–30 years. Cases have also been reported in the fetal/neonatal period, as well as in premenarche girls and postmenopausal women.^{1–3}

Figure 1 Ultrasound appearances of a right-sided dermoid cyst.

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Figure 2 Ultrasound appearances of a left-sided dermoid cyst.

Studies showed that there are several predisposing factors associated with adnexal torsion. Ovarian pathology and enlargement is a well-recognised risk factor, however, ovarian torsion can also occur in normal size ovaries.⁴ A previous review of the medical literature revealed that the adnexa were histologically normal in 50% of cases with tubal infection seen in the remaining adnexal tissues. Benign ovarian tumours carry a higher risk (11%) of torsion than malignant neoplasms (2%). Pregnancy is another risk factor with about 20% of cases occurring in pregnant women. The use of drugs for ovulation induction has been also shown to be associated with increased risk of adnexal torsion. Other common risk factors include hypermobile adnexa and previous pelvic surgery.^{5 6}

In most cases of ovarian torsion the presenting symptoms are non-specific and are usually common to many other gynaecological and surgical causes of acute abdomen. This makes the diagnosis very challenging and is often delayed. Females with ovarian torsion usually present with the following symptoms: abdominal pain (93%), fever (82%), nausea and vomiting (73%). A total of 53% of patient had previous recurrent episodes of abdominal pain. The diagnosis was suspected preoperatively in only 38% of the cases.⁷

Ultrasound with or without Doppler imaging is the investigation of choice. Studies showed that >93% of patients with ovarian torsion will have abnormal ultrasound findings. Diagnostic laparoscopy is indicated when there is still high suspicion of ovarian torsion. In the past there was always a concern

that untwisting the adnexa to save function can result in pulmonary embolism and therefore oophorectomy was the treatment of choice. Nowadays surgeons try to preserve ovarian function by conservative management as studies have shown that there is no significant risk of thromboembolism.⁸

Learning points

- ▶ Ovarian torsion needs prompt diagnosis and treatment.
- ▶ Medical professionals should have a high index of suspicion for ovarian torsion in any young woman with lower abdominal pain.
- ▶ Bilateral adnexal torsion is a rare event.
- ▶ Early treatment can save the ovary and potentially a woman's fertility.

Competing interests None.

Patient consent Obtained.

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