CASE REPORT

Isolated recurrent torsion of the Fallopian tube

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We report a rare clinical case of recurrent isolated torsion of the Fallopian tube. An 18 year old woman presented with acute right lower quadrant pain, nausea and vomiting. Torsion of the Fallopian tube was detected by laparoscopy and detorsion was performed. Two years later, a second similar episode of pelvic pain recurred. Having in mind the first episode, diagnosis was facilitated and detorsion was performed in accordance with the patient’s wishes. However, the dilemma of ideal management of recurrent cases of torsion of the same tube remains open for discussion. The possibility of torsion of the Fallopian tube and recurrent torsion of the tube, although rare, should be considered in any patient with acute onset of lower abdominal pain.

Key words: adnexa/Fallopian tube/laparoscopic detorsion/torsion

Introduction

While torsion of the adnexa is relatively common, isolated torsion of the Fallopian tube alone, first described in 1890 (Sutton, 1890), remains a rare occurrence with an incidence of 1 in 1.5 million women (Hansen, 1970). A correct preoperative diagnosis is rarely made. Differential diagnosis can involve gynaecological and gastro-intestinal conditions, including: torsion of the ovary/leiomyoma, pelvic inflammatory disease (Maynard et al., 1996), ectopic pregnancy, appendicitis, diverticulitis and inflammatory bowel diseases, often leading to delay of timely intervention. This can be detrimental, especially as laparoscopy can salvage tubal function, and indeed pregnancy has been reported after tubal detorsion (Blair, 1962).

To the best of our knowledge this is the first reported case concerning recurrent torsion of the right Fallopian tube that occurred within an interval of 2 years.

The dilemma of how to manage such an uncommon condition and the options on how to prevent the recurrence of Fallopian tube torsion after it is first encountered are discussed.

Case report

A 18 year old nulligravid woman presented to our gynaecological emergency room with acute onset of right lower quadrant abdominal pain, nausea and vomiting lasting for several hours. Her previous medical history was uneventful. She was using oral contraceptive drugs, being on the second day of the menstrual cycle. Two years before this episode, a similar episode of abdominal pain led to emergency laparoscopy, which revealed torsion of the right Fallopian tube that was treated by laparoscopic detorsion.

This time, on admission, she was pale, tachycardic, without fever, with severe tenderness of the right lower quadrant of the abdomen but with no guarding signs or rebound tenderness. The right adnexa was tender on vaginal examination. Vaginal ultrasonic examination revealed a normal uterus surrounded by a relatively large amount of pelvic fluid. Dilated tubular structures with thickened echogenic walls and internal debris between the uterus and the right ovary were demonstrated. Haemoglobin and white blood cell values were within normal limits and the urinary β-human chorionic gonadotrophin (HCG) measurement was negative. At this stage emergency diagnostic laparoscopy disclosed a normal left adnexa. The right ovary was normal but the adjacent tube was longer than usual, twisted four times on its distal part, which was dilated, oedematous and dark red. The fimbrial portion of the tube was still red. No pelvic adhesions or endometriotic lesions were seen. Laparoscopic detorsion was successfully performed and the tube gradually regained its pink colour within 20 min. The postoperative course was uneventful and the woman was discharged the next day.

Discussion

The incidence of recurrent isolated tubal torsion is difficult to estimate. Since the incidence of a first episode of torsion of the tube is ~1 per million women then the incidence of recurrent torsion (if they are independent variables) would be a simple mathematical product of million\(^{-1}\) \times\ million\(^{-1}\), that is, 1 per 10\(^{12}\) women. Many aetiologies for tubal torsion have been suggested including hydrosalpinx, tubal carcinoma, prior tubal ligation (Krissi et al., 1997), ovarian and para-ovarian masses, pregnancy, hydatids of Morgani and peristaltic abnormalities. A possible contributing factor for recurrent tubal torsion in the case reported here was a long tortuous tube with expending mesosalpinx and, since this is a dependent variable, the incidence of recurrent torsion of the tube should be
somewhat less rare, possibly between $10^{-6}$ and $10^{-12}$ women. This condition may also occur in pregnancy, labour and premenstrually (Kurzbart et al., 1994). Tubal torsion is similar to ectopic pregnancies (Langer et al., 1990) and ruptured corpus luteum (Raziel et al., 1993) in that most reports describe involvement of the right side (Milki and Jacobson, 1998). This could be due to the fact that the mobility of the left tube is limited by the sigmoid colon or that more cases of right-sided pain are surgically explored for suspected acute appendicitis (Richards et al., 1998).

At the first episode of torsion of the Fallopian tube, tubal preservation must be the rule, unless the tube is totally necrotic. Pregnancy has been reported after detorsion of the tube (Blair, 1962). After a second episode of tubal torsion the question as to whether the tube remains functional is not yet clear. Salvage of the tube in order to preserve future fertility, especially in a young nulligravid patient, is crucial. However, if tubal function has been compromised, then leaving it in place exposes the patient to the risk of ectopic pregnancy and to the possibility of a third episode of tubal torsion, including the risks of anaesthesia and laparoscopy.

Operative fixation of the Fallopian tube in order to prevent a recurrent episode of torsion is logical and technically possible but it may change the normal anatomy of the pelvis – either moving the adnexa outside from the pelvis or distorting the important close relationship between the ovary and the fimbrial portion of the tube. Branches of both the uterine and the ovarian arteries provide circulation to the Fallopian tube. Shortening of a ‘billowing’ mesosalpinx may potentially reduce the mobility and hence prevent recurrent torsion of the tube; this was not performed in the case reported here since it may have impaired the blood supply to the adjacent ovary.

Although isolated torsion of the tube is rare and recurrent torsion is even more rare, it should be considered in the evaluation of a woman with acute onset of lower abdominal pain. Sonographic features of isolated torsion of the tube (Propeck and Scanlan, 1998) may help to establish a preoperative diagnosis which may lead to timely laparoscopy before irreversible necrosis occurs.

References

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