

Case Report:

Asynchronous bilateral ovarian torsion due to corpus luteum hemorrhage

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Abstract:

Asynchronous bilateral ovarian torsion is uncommon, but a potential possibility. Delayed intervention of the same may even result in castration. Being torsion conscious helps early diagnosis before necrosis of the ovary and permits conservative management. Bilateral ovarian fixation at initial surgery may prevent recurrence on either side.

Keywords: Corpus luteum hematoma; ovarian torsion; asynchronous; Oophropexy.

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Introduction:

Asynchronous bilateral ovarian torsion (ABOT) is defined as torsion of each ovary at different settings,¹ it was first described by Warnekin in 1895.² Synchronous or asynchronous ovarian torsion is uncommon but can be a devastating situation. Delayed intervention in case of torsion can cause gangrene commanding oophrectomy. About 25 cases of bilateral torsion have been reported, all of which have been in pediatric, premenarcheal age group^{1, 3, 4, 5} or in patients with gonadotrophin induced ovarian hyper stimulation syndrome.^{6, 7} or in case of bilateral Lutein cysts with Vesicular Mole.⁸ We report the first case of spontaneous ABOT with massive corpus luteum hemorrhage. In the conserved ovary oophropexy was attempted to prevent recurrence of torsion.

Case History:

A 22 years old unmarried female reported to Gynecology emergency, with acute pain in lower abdomen and vomiting for 6 hours. Her menstrual cycles were normal with last periods 6 days earlier. At admission vitals were stable. Abdominal examination revealed tenderness and guarding in lower abdomen with a suprapubic intra abdominal mass arising from pelvis with restricted mobility. Per speculum and vaginal examination was omitted. Rectal examination revealed vague fullness

in left adnexa region separate from the uterus. Routine investigations were within normal limits. Ultrasonographically a heterogeneous mass of 7.5 x 7.4 x 5cm mass in left adnexa with decreased flow on Doppler. Right adnexa and uterus were normal with minimal free fluid in the pelvis. Patient underwent laparotomy for ovarian torsion. Left Salpingo-oophorectomy was done for gangrenous changes with 3 twists and a massive corpus luteum haematoma. The other ovary was normal. Postoperative period was uneventful. Histopathology revealed hemorrhagic infarction. Patient had recurrence of similar episode of pain on 26th postoperative day. Examination revealed a mass in right iliac fossa with tenderness. Ultrasound examination showed 8x8cm mass in right adnexa, with the Doppler flow suggestive of torsion. At laparotomy right adnexa with hemorrhage and necrosis had two twists the pedicle was untwisted and clots removed from the corpus luteum and in the conserved ovary oophropexy was done. Patient initially received Dobustal, & oral contraceptives and subsequently regular progesterone withdrawal was planned to prevent massive corpus luteum hemorrhage. At 28 years patient reported with primary infertility and failed to conceive with routine ovulatory drugs for 2 years. Now the woman has conceived and has delivered 2 months back.

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Discussion:

Ovarian torsion is an important differential diagnosis of acute abdomen. Torsion of normal adnexa is postulated to result from excessive mobility resulting from congenitally long supportive ligaments, mesovarium, or mesosalpinx.¹ Asynchronous bilateral ovarian torsion is reported mainly in pediatric, premenarcheal age group^{1,3,4,5} or secondary to hyper stimulation syndrome with gonadotropins^{6,7} In contrast to the adult, the pediatric patient may have normal ovaries in up to 25% of the cases.¹ Abdomino-pelvic ultrasound scan is the main investigation and Doppler acts as an adjunct to improve the diagnostic accuracy.⁹ However, surgery is the definitive diagnostic modality. Laparotomy versus laparoscopy is the surgeon's discretion. Intraoperative management of ovarian torsion has been debated in the literature. In the absence of obvious tissue necrosis conservative management is advocated^{10, 11}. In instances of contra lateral torsion following unilateral Salpingo-oophorectomy, conservative management with untwisting and oophropexy of the remaining ovary is advised¹. The patient on conservative management should be followed-up closely for potential risk of retained necrotic ovary. Oophropexy should be practiced to diminish the likelihood of recurrence. Contra lateral oophropexy, at the time of initial surgery, could

prevent the risk of asynchronous torsion. Different methods are described for fixation of the ovary. For an elongated utero-ovarian ligament, plication may be accomplished by suturing the proximal and distal ends of the uteroovarian ligament.^{12, 13} The other option is to shorten the ligament with placement of an Endoloop (Ethicon, Somerville, NJ).⁷ Often the uteroovarian ligament is normal in appearance, and in such cases use of oophropexy has been described. One such technique is to fix the ovary to the back of the uterus using permanent suture.¹⁴ Other use permanent suture to fix the mesovarium to the pelvic sidewall at the level of the pelvic brim.¹⁵ A pediatric study has reported 21 patients with ovarian torsion.¹⁶ High index of suspicion of torsion helps in early diagnosis to salvage more twisted ovaries. Hence, girls presenting with nonspecific lower abdominal pain should be evaluated for ovarian torsion. Clinical diagnosis supplemented with ultrasound findings usually confirms diagnosis. Doppler flow may be supportive but does not always rule out ovarian torsion. Recurrent ovarian torsion is an uncommon event, but given the possibility of permanent sterility, oophropexy should be performed with conservative surgery of ovary.

Conflicting Interest: Nil

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