CASE REPORT

RARE PRESENTATION OF LARGE BILATERAL HYDROSALPINX WITH ACUTE TORSION

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ABSTRACT: Torsion of Bilateral hydrosalpinx of the fallopian tube is a rare case present with lower abdominal pain^{1, 2, 4}. Early diagnosis of such cases is crucial because it allows the possibility of salvage surgery and the prevention of irreversible vascular damage. However, diagnosis is rarely made before surgery due to non-specific clinical and imaging features. It was misdiagnosed as a multiloculated ovarian cyst at a local hospital. Familiarity with fallopian tube disease and the imaging appearances of both the normal and abnormal fallopian tube is crucial for optimal diagnosis and management in emergent as well as ambulatory settings.^{3,4}

CASE: 32 years female got admitted in KIMS on 09/05/12 with chief complain of acute pain in abdomen. She was Para 2 Living 2 and had undergone bilateral abdominal tubectomy 5 years back. She had no major medical illness or major surgery in past. There was no history of fever, loose motion, & vomiting. On examination patient had dehydration, tachycardia, and hypotension. On per abdomen Cystic mass present 18-20 weeks size, Tenderness present + No ascites. On per speculum examination Cervix and vagina healthy, Cervix pushed in downward left direction. On per vaginal examination Uterus anteverted, normal size, large cystic mass felt separately from uterus in posterior and in right fornix, Tenderness present ++. All blood and biochemical investigation were normal.

Ultrasonography:

- Fluid filled, elongated, twisted and distended right tube of approximate size 10 x 12 cms with oedematous left fallopian tube 10x8cm.
- Echo lucent .no ascites.
- Longitudinal folds are thickened, uterus normal size, both ovaries normal.

Management: Patient underwent emergency laparotomy with bilateral salpingectomy. Intraoperatively there was right twisted hydrosalpinx of approximate size 10 x 12 cm in. And left hydrosalpinx twisted size 8x9 cm. Uterus was normal, ovaries were normal. Rest abdominal organs were normal.

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Histopathological report:

Gross: Received both right and left tortuous cystic fallopian tube 12 cm x7.5cm in length and 10cm x8cm respectively. Cut section shows patent lumen. The external surface shows congested blood vessels. With serous clear fluid.

Microscopic: Section shows fallopian tube with dilated lumen and flattened epithelium. Section shows wall lined by single to double layered cuboidal cells. The wall composed of fibrocollagenous tissue with congested blood vessels.

Impression: Bilateral Hydrosalpinx.

Clinically Differential diagnosis:

- Twisted ovarian cyst
- Fibroid
- Ectopic pregnancy

DISCUSSION: Definition: A Hydrosalpinx is a blocked, dilated, fluid filled-fallopian tube usually caused by a previous tubal infection^{1,2}. Other causes include tubal ligation, hysterectomy without salpingo-oophorectomy, endometriosis, and tubal malignancy. Patients may be asymptomatic or may present with pelvic pain or infertility. One or both fallopian tubes may be affected. Hydrosalpinx can mimic a cystic ovarian neoplasm, bowel obstruction, or dilated pelvic veins. Isolated or bilateral fallopian tube torsion is exceedingly rare, occurring in only one of every 1.5 million women⁽²⁾. Tubal torsion usually affects adolescent girls and women of reproductive age. Risk factors include a long or congested mesosalpinx, prior tubal ligation, hydatid cyst of Morgagni, hydrosalpinx, PID, hyper motility of the fallopian tube, and trauma.⁵

Torsion of the right fallopian tube is much more common, a fact that is thought to be related to fixation of the left tube in the left hemipelvis by the sigmoid colon and mesentery. Adnexal venous and lymphatic obstruction resulting in pelvic congestion is a proposed mechanism of tubal torsion. The resulting enlargement of the fimbrial end of the tube serves as a lead point for torsion⁽¹⁾.

Presenting symptoms include acute onset of lower abdominal pain that may be crampy or constant and dull^{1, 4}. The pain may radiate to the groin or thigh and may be accompanied by nausea, vomiting, and peritoneal signs. Laboratory tests may show normal or slightly elevated levels. US are often in a female with acute pelvic pain.

PATHOGENESIS: Injury to the far end of the fallopian tube, the ampulla, and its delicate fimbriae, causes the end of the tube to close. Glands within the tube produce a watery fluid that collects within the tube, producing a sausage shaped swelling that is characteristic of hydrosalpinx. The classic causes of hydrosalpinx are Chlamydia and gonorrhoeae, which can run undetected for years, slowly injuring and destroying the delicate fimbriae. As a reaction to injury, the body rushes inflammatory cells into the area, and inflammation and later healing result in loss of the fimbria and closure of the tube. These infections usually affect both fallopian tubes, and although a hydrosalpinx can be one-sided, the other tube on the opposite side is often abnormal.

DIAGNOSIS: The diagnosis of hydrosalpinx can be confidently made at US. A dilated fallopian tube is seen as a thin- or thick-walled C- or S-shaped anechoic tubular structure separate and distinct from the uterus and ovary. Thickened longitudinal folds produce a characteristic

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“cogwheel” appearance when imaged in cross section. These folds can be mistaken for mural nodules on transverse images of the fallopian tube. If recognized, the presence of longitudinal folds is pathognomonic for hydrosalpinx. Alternatively, the folds may be effaced, making it difficult to differentiate hydrosalpinx from a cystic adnexal mass if the tubular configuration is not recognized. A dilated tube can be distinguished from pelvic bowel loops from the lack of peristalsis. Pelvic veins can be recognized from the presence of moving low-level internal echoes, and blood flow may be detectable at Doppler imaging^{1,3}. Hydrosalpinx may be seen incidentally at CT as a fluid-attenuation tubular juxta uterine structure that is separate from the ovary. MR imaging is the modality of choice for the characterization and localization of adnexal masses that cannot be adequately evaluated with US. It can be diagnosed by Laparoscopy and, Hysterosalpingogram^{1,5}.

Hydrosalpinx and Fertility: Not only does a hydrosalpinx cause infertility^{1,2}, it can also reduce the success rate of fertility treatment. The blocked tube can communicate with the uterus, and the fluid from the tube can sometimes leak back into the uterine cavity. This fluid is believed to be toxic to the early embryo development, and certainly provides an unfavourable environment. The large amount of the fluid flow back into the uterus can produce enough flow that embryos find it difficult to attach, since they have no ability to move against the tide.

CONCLUSIONS: The increasing use of imaging necessitates familiarity with conditions affecting the fallopian tube. Whether common or rare, abnormalities of the fallopian tube should be considered in the differential diagnosis for pelvic disease in the non pregnant patient^{2,3}. PID is the most common of these abnormalities and encompasses a spectrum ranging from salpingitis to pyosalpinx to TOA. Although imaging is often not required, WE and CT may be useful for directing management or excluding alternative diagnoses. Bilateral tubal torsion is rare but is an important diagnosis to consider in the acute setting.^{4,5}

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Fig.no1 preoperative abdominal distention.

Fig.no.2 Echo lucent Left sided? Ovarian cyst? Hydrosalpinx

Fig.no.3Right sided echo lucent hydrosalpinx? Ovarian cyst

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Fig. no 4 left sided twisted hydrosalpinx

Fig no.5 Right sided hydrosalpinx.

Fig.no.6