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Case Report on Rare Case of Isolated Fallopian Tube Torsion

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Abstract **Case Report**

A 28 year old married female presented with complaints of severe right sided pelvic pain associated with nausea and vomiting referred for abdominal sonography. An abdominal ultrasound was done, which demonstrated right adnexal large cystic mass lesion having mobile internal echoes and adjacent twisted structure with positive whirlpool sign. Right ovary is separately visualized showing normal vascularity on Color Doppler. Uterus and left ovary also appeared normal. Computed tomography was done, which revealed well defined thick walled cystic structure in right adnexa and showing progressive narrowing towards right cornu of uterus. On the basis of the patient symptoms & radiological findings a diagnosis of fallopian torsion with hydrosalpinx was made.

Keywords: Tubal torsion, Hydrosalpinx, Salpingectomy, Whirpool sign, Ultrasound, CT scan.

INTRODUCTION

Isolated fallopian tube torsion is a rare gynecological emergency which causes lower quadrant pain and usually occurs in adolescents and ovulating women and is rarely noted in postmenopausal women. The entity was first described by Bland-Sutton in 1890 and has a prevalence of one in 1.5 million women [1].

The clinical and imaging features of tubal torsion are highly nonspecific, which often leads to clinical misdiagnosis [5]. Patients with fallopian tube torsion usually have an acute pain in the infra-umbilical region, commonly unilateral, without fever and alteration of the bowel habit, and with a normal menstrual pattern and laboratory analyses [2].

Risk factors for isolated fallopian tube torsion include both intrinsic factors like hydrosalpinx, pelvic inflammatory disease, tubal ligation, and tubal neoplasm; and extrinsic factors such as adhesions, adjacent ovarian or paraovarian masses, adnexal venous congestion, uterine masses, gravid uterus, and trauma. Complications from tubal torsion include fallopian tube necrosis and gangrenous transformation, leading to an increased risk for superinfection and peritonitis [1].

The radiological findings are not specific to make the diagnosis of isolated fallopian tube torsion. However, the presence of both dilatation of the fallopian tube, and a normal ipsilateral ovary is highly suspicious of the tubal torsion. It is more common on the right side than on the left side. In some cases it is possible to see in the Colour Doppler US circular vessels within the hydrosalpinx, showing a whirlpool sign [4].

Early diagnosis and immediate surgical intervention are crucial in these patients to avoid salpingectomy. Laparoscopy is the gold standard for accurate diagnosis and management [3]. Treatment options include surgical detorsion, salpingotomy, and salpingectomy depending on the stage of intervention and presence of complications [1].

Differential Diagnosis List

Isolated torsion of the right fallopian tube, Acute appendicitis, Epiploic appendagitis, Tubo-ovarian torsion, Diverticulitis, Colitis

CASE REPORT

A 28 year old married female presented with complaints of severe right sided pelvic pain associated with nausea and vomiting referred for abdominal sonography to our Department at Sri Aurobindo Hospital, Indore (M.P).

On clinical evaluation, the patient was afebrile and had a normal pulse and blood pressure. With significant rebound tenderness in the right lower quadrant and normal bowel sounds. Complete blood count, urinalysis, and serum chemistries were normal

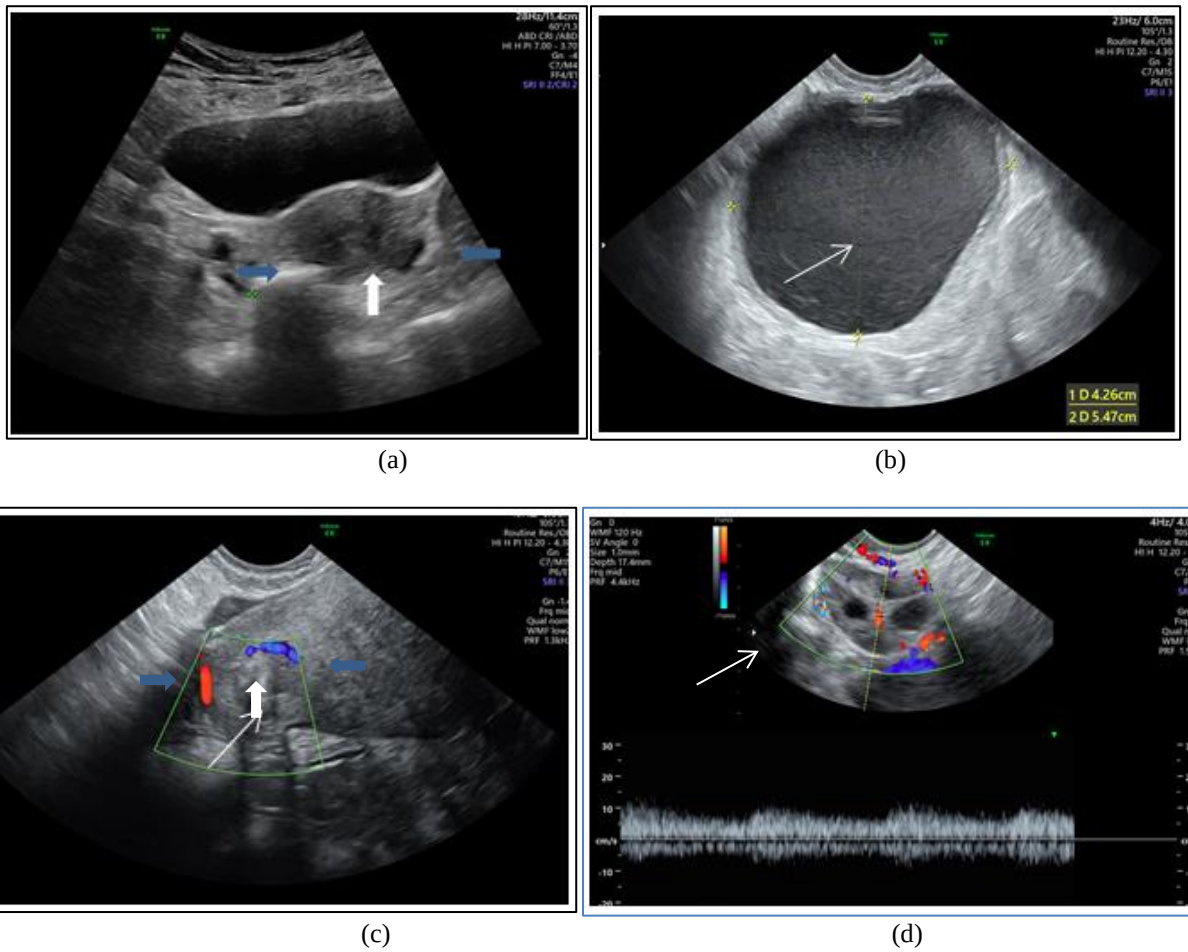
and urine pregnancy test was negative. Endocervical swabs were obtained and sent for culture.

USG pelvis revealed normal uterus and bilateral ovaries and a large cystic mass lesion with internal echoes in right adnexa. Adjacent to the lesion a twisted structure with whirlpool sign was noted, suspicious for fallopian tube torsion with hydrosalpinx. No free fluid was seen in pelvic cavity. (Fig 1)

CECT abdomen scan showed normal uterus and bilateral ovaries. A well-defined cystic lesion with thick enhancing wall was noted in right adnexa anterior to uterus showing progressive narrowing towards right cornu of uterus (Fig 2). All other abdominal organs and bowel loops appeared grossly normal.

On the basis of radiological investigations diagnosis of right fallopian tube torsion with hydrosalpinx was made. Patient underwent laproscopic surgery, which showed torsion of the right fallopian tube with hydrosalpinx and adjacent hemorrhage (Fig 3). The uterus, right ovary and left ovary were grossly normal. Adhesiolysis and salpingectomy were performed.

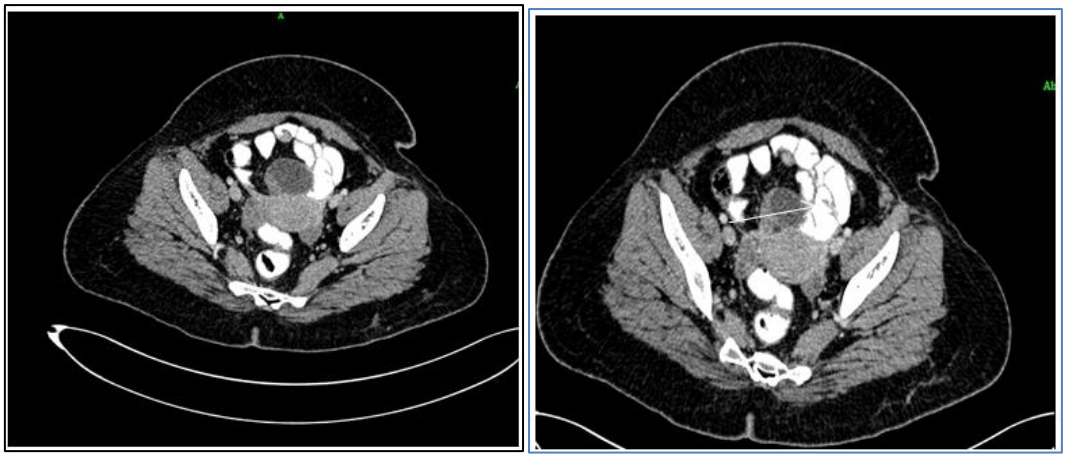
Histopathological findings revealed dilated fallopian tube with infarction and extensive haemorrhage.



(a) (b)

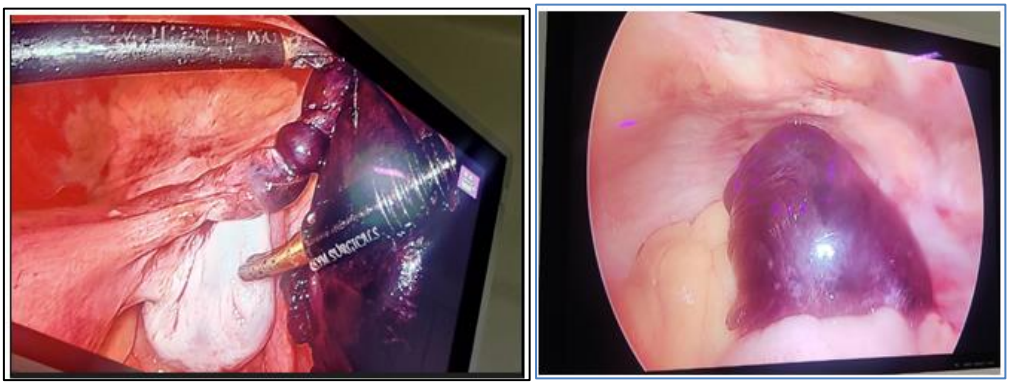
(c) (d)

Figure 1: Ultrasound Pelvis (White Arrow) showed (a) normal uterus (Whitw Arrow) and bilateral ovaies (blue arrow). (b)A large cystic mass with internal echoes in righ adnexa (white Arrow). (c) Adjacent to the cystic lesion twisted structure with whirpool sign was noted (white Arrow).(d)On colur Doppler, right ovary shows normal Color flow and wavefrom.



(a) (b)

Fig. 2: Axial CT of patient (a) normal uterus and bilateral overies (b) well defined thick walled cystic structure in righ adnexa showing progressive narrowing towards right cornu of uterus representing dilated, torsed right fallopian tube (white arrow head)



(a) (b)

Fig. 3: Laproscopic images showed (a) dilated torsed fallopian tube with (b) extensive hemorrahage

DISCUSSION

Isolated fallopian tube torsion is an exceptionally rare gynecological emergency condition, usually occurs in women of reproductive age. Clinical manifestations are non-specific and patients may present with various types of abdominal pain—acute or subacute, intermittent or persistent, severe or mild—and are often accompanied by vomiting. Risk factor for isolated fallopian torsion includes hydro salpinx and para fallopian masses. Continuous torsion leads to obstruction of arterial blood supply, which in turn leads to tubal ischemic necrosis [5]. Its diagnosis and the distinction from ovarian torsion are challenging and often surgical, however US and Doppler US are helpful [2].

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