

Introduction

Isolated fallopian tube torsion (IFTT) is extremely rare [1] and results from twisting of the fallopian tube about its own axis alone with an unaffected ipsilateral ovary. A clear pre-operative diagnosis is difficult, due to lack of specific clinical symptoms. We report an atypical presentation of a case of a premenarchal virgin child with hydrosalpinx induced isolated gangrenous tubal torsion.

Abstract

Atypical torsion of the adnexa induced by hydrosalpinx in the paediatric age group without pre-disposing factors is rare. This case report describes a 10 year old premenarchal virgin child presenting with left lower abdominal pain. Ultrasound and contrast computer tomography imaging showed a left adnexal thick walled moderate sized cystic lesion. Diagnostic laparoscopic surgery revealed ischaemic tubular cystic left hydrosalpinx twisted along its own axis at the level of isthmus. Laparoscopic left salpingectomy was performed in 24 hours salvaging a healthy left ovary. Early diagnosis is important in preventing complications of severe infection and infertility.

References

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Case History

A 10 year old child was brought to OBGYN suspecting menarche with severe left lower abdomen colicky pain radiating to the left upper thigh with episodes of vomiting but no fever, constipation, diarrhoea, vaginal bleeding or dysuria. The pre menarchal child had normal secondary sexual characteristics with history of yellowish discharge for one day for two consecutive months.

On examination vitals were stable; per abdominal examination revealed mild tenderness over the left iliac fossa with no guarding. Laboratory tests showed normal WBC, urinalysis and CA125 levels. Abdominal ultrasound scan (USS) was performed as shown in Figure 1 and was suggestive of moderate sized left hydrosalpinx with normal left ovary. Similarly contrast enhanced computer tomography (CECT) abdomen showed normal ovaries with an elongated tubular peripherally enhancing hypodense structure 3.8 x 5.0 x 3.0 cm (TR-AP-CC) in left adnexa with incomplete internal septations.

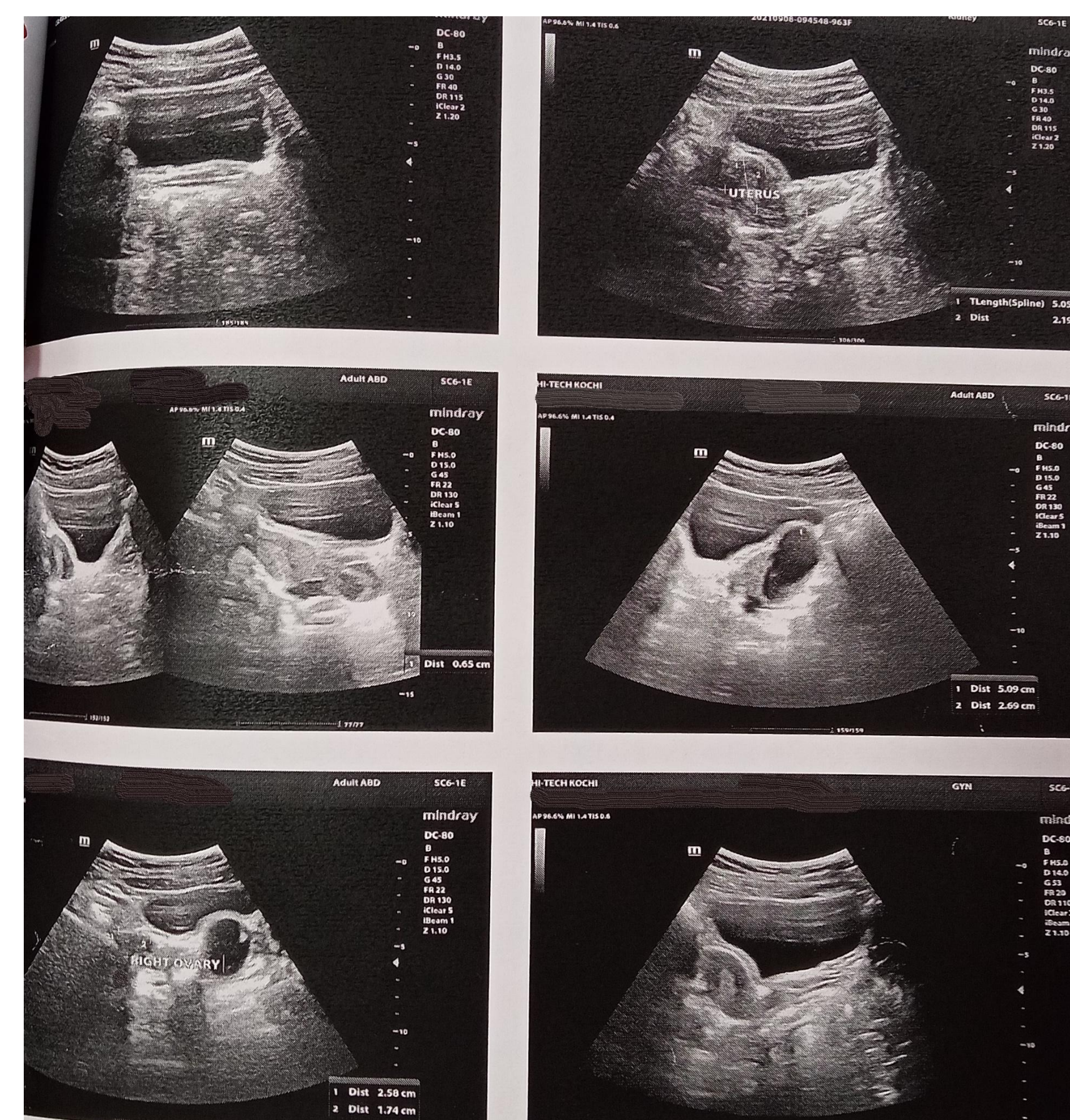


Fig.1 Ultrasound imaging showing a cystic thick wall adnexal mass.

Management

Emergency diagnostic laparoscopy revealed gangrenous tubular shaped cystic left hydrosalpinx that was twisted twice along its own axis with normal left ovary. Laparoscopic left salpingectomy was performed, salvaging a healthy left ovary. The uterus, contralateral tube and ovary were normal. Pathology report of necrotic tube was consistent with Fallopian tube tissue with extensive haemorrhage suffusion from torsion induced changes with no atypia. The patient tolerated the procedure well without complication. The abdominal pain resolved and the post-operative recovery was uneventful with discharge in 48 hours.



Fig.2 Laparoscopic view showing twisting of fallopian tube twice on its own axis. Necrotic tubal tissue can be visualised adjacent to the twisted portion.

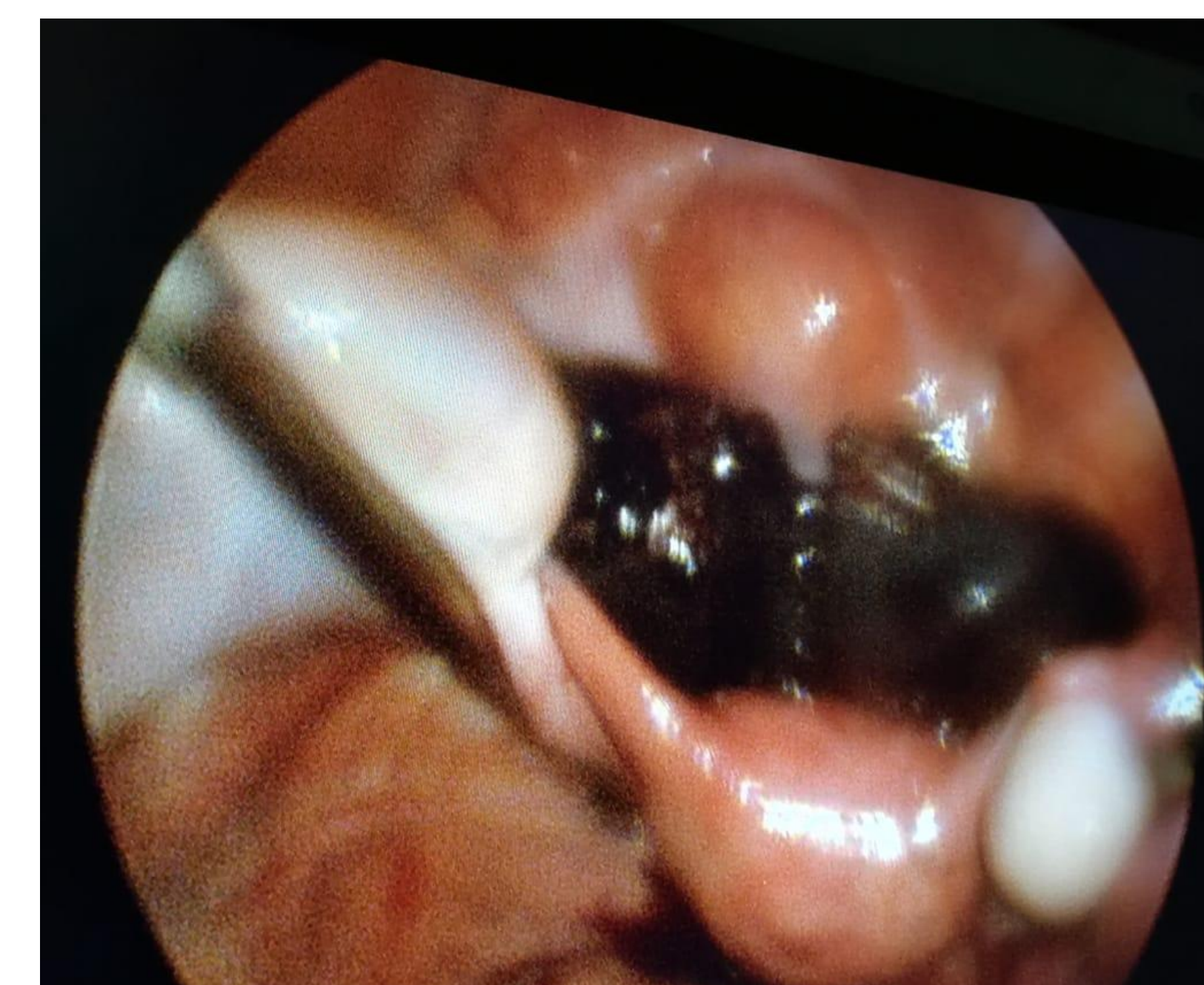


Fig. 3 Laparoscopic view of normal uterus & ovaries after left salpingectomy. Resected gangrenous fallopian tube seen over the uterus

Discussion

Isolated Fallopian Tube Torsion (IFTT) is a one in a million rare phenomenon, especially in the paediatric age group [3].

Aetiology include congenital elongated tube, hydrosalpinx, adnexal mass or malignancy [2]. Other causes include trauma, pelvic surgeries with associated Pelvic Inflammatory Disease (PID) [1] or certain sports or activities with sudden movement [3]. Premenstrual elevated FSH may result in altered tubal activity with occlusion of the distal tube, resulting in hydrosalpinx [4]. This patient had normal FSH levels and remained premenarchal during follow up. PID episodes during childhood or uneventful torsion of the hydatid of Morgagni may increase the risk of IFTT [4]. Tubal torsion likely affects the right tube more due to lack of space on the left from sigmoid colon [2]. Our case of left tubal torsion with gangrenous hydrosalpinx in a premenarchal virgin intacta with no obvious risk factors, makes it an atypical case report.

Establishing the diagnosis is difficult in IFTT with no specific ultrasound finding or clinical presentation. Adnexal torsion commonly presents with lower abdominal pain and is associated with vomiting [4]. Literature reviews mention that typical imaging findings include thickened tube walls with cystic enlargement of adnexa and color doppler may aid in identifying blood flow to the twisted adnexa [4]. It must be noted that a normal flow does not always indicate absence of torsion [4]. Cases may be diagnosed as hydrosalpinx, haematosalpinx or ovarian torsion. Differential diagnoses include appendicitis, ectopic pregnancy and ruptured ovarian cysts [1]. IFTT diagnosis is established during diagnostic surgery [4].

Management with surgical intervention, preferably laparoscopy, is the gold standard for IFTT by performing surgical detorsion, salpingotomy or salpingectomy [2]. Salvaging the fallopian tube is difficult as definitive diagnosis is delayed and the risk of tubal necrosis is high if 10 hours surpass the onset of pain [1]. Detorsion of the tube to resume adnexal blood supply is the recommended conservative surgery to retain fertility [2]. Risk of ectopic pregnancy in post torsion tube must be informed to the patient [4]. Surgical intervention thus must be performed earliest to avoid irreversible damage, provide faster recovery and reduce adhesions. Due to the unsalvageable condition of the tube in our case, a left salpingectomy was performed.

Conclusion

A diagnosis of tubal torsion should be considered in an acute presentation of abdominal pain in a child or adolescent and timely intervention will prevent severe complications. Laparoscopy is gold standard in diagnosis and treatment with excellent prognosis with preservation of fertility.