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RESEARCH ARTICLE

LEFT ADNEXAL TORSION IN ADOLOSCENT: A CASE REP0RT

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Abstract

Adnexal torsion is the fifth most common gynecologic emergency usually associated with benign functional ovarian cysts or benign teratomas.Adnexal torsion usually presents as sudden onset colicky lower abdominal or pelvic pain associated with nausea or vomiting often preceded by jerky movement like weight lifting. If ovarian torsion is suspected, early diagnosis withtimely intervention is necessary to preserve ovarian function and future fertility.This is a case report of 14-year-old girl with history of acute onset lower abdominal pain diagnosed as torsion left ovarian cyst which was managed by emergency laparotomy and left adnexectomy.

Introduction:-

The most common clinical symptom of torsion is sudden-onset abdominal pain that is intermittent, non radiating and not relieved with medication, and associated with nausea and vomiting`. A minimally invasive surgical approach is recommended with detorsion and preservation of the adnexal structures regardless of the appearance of the ovary. A surgeon should not remove a torsed ovary unless oophorectomy is unavoidable, such as when a severely necrotic ovary falls apart.

Case Report:-

A 14-year-old adolescent girl was brought to the emergency room of Government general hospital, Kurnool with history of acute onset lower abdominal pain of one day duration. Pain was sudden in onset , continuous associated with nausea and two episodes of vomiting. She attained menarche one year ago and had no menstrual complaints.Her last menstrual period was 2 weeks ago.On examination, patient was obese, uncomfortable, afebrile, mildly dehydrated. Vitals were stable. Upon abdominal inspection, there was suprapubic fullness. Vague, tender, cystic mass could be felt in the suprapubic region, corresponding to 16 to 18 weeks size gravid uterus. Guarding of abdominal muscles was noted. Pelvic ultrasound revealed a cystic lesion of about 8.1 × 5.3 cm in the midline with the twisted pedicle with out any vascularity. This was found to be arising from the left adnexa. Rest of the ovarian tissue was enlarged suggestive of left ovarian torsion with minimal fluid in POD. In view of peak phase of 3rd wave of Covid-19, the patient was taken up for emergency laparotomy instead of laproscopy. During laparotomy, 50 ml of gelatinous blood tinged peritoneal fluid was noted. Left adnexal torsion contained 15*16cms solid-cystic mass . The left fallopian tube was edematous, enlarged and gangrenous with pouting fimbrial end. Left ovary was 9*8cms size, contained solid and cystic areas,bluish in colour. Torsion of pedicle by two and half turns in clock wise direction was noted. As the gangrenous tube was forming a mass along with left ovary, left adnexectomy was resorted to. Right tube was edematous and right ovary was normal. Uterus was unremarkable. Histopathological examination of the specimen showed serous cystadenoma of ovary andhematosalpinx.

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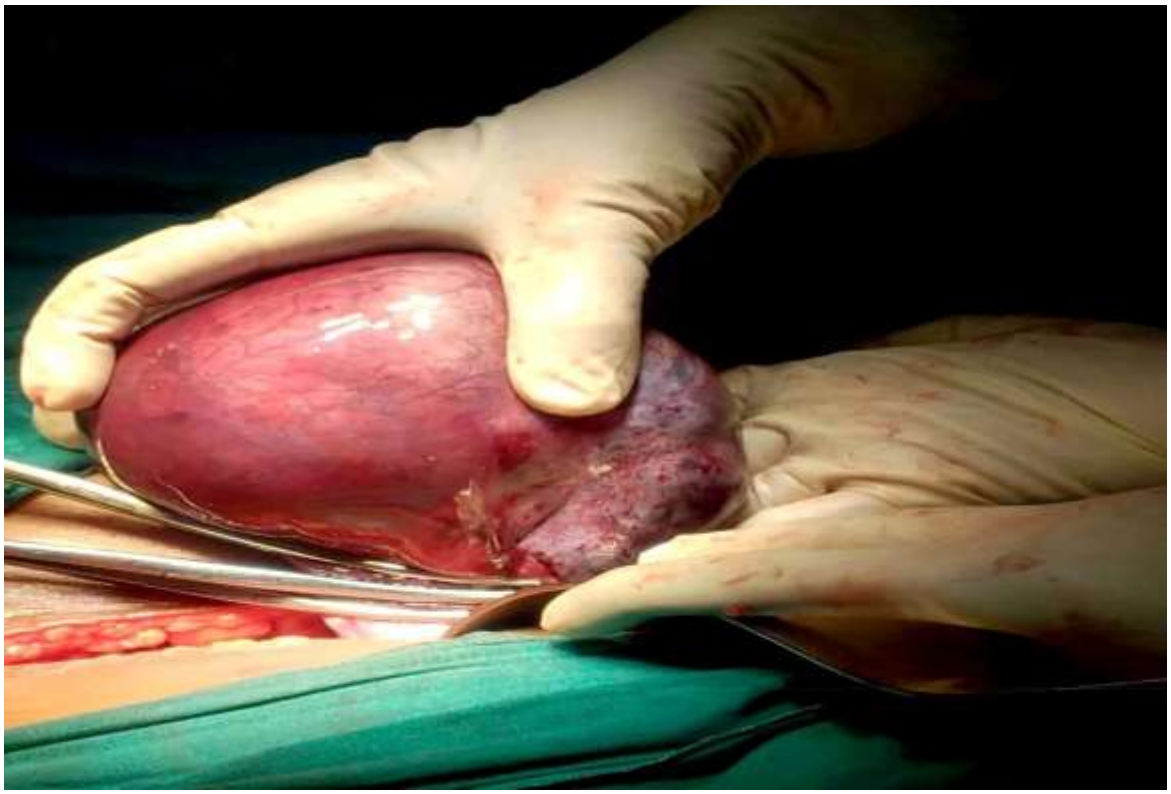

Case Discussion:-

Ovarian torsion involves torsion of the ovarian tissue on its pedicle leading to reduced venous return, stromal edema, internal hemorrhage, and infarction with the sequelae. Ovarian torsion classically occurs unilaterally in a pathologically enlarged ovary.Approximately 5 of 100,000 females aged 1–20 years are affected [1,2], with **girls older than 10 years at increased risk because of hormonal influences and gonadal growth that result in an**

increased frequency of physiologic and pathologic masses[3,4,5]. The risk of torsion increases when pelvic masses exceed5cm [6]. The most common ovarian pathologies found in adolescents with adnexal torsion are benign functional ovarian cysts and benign teratomas[7]Sixty-four percent of torsions occur on the right side [8].**The lower rate of torsion on the left side is attributed to the protective nature of the descending colon.** In contrast to adnexal torsion in adults, adnexal torsion in pediatric and adolescent females involves an ovary without an associated mass or cyst in as many as 46% of cases [9]. Congenitally long ovarian ligaments, excessive laxity of the pelvic ligaments, or a relatively small uterus that allows more space for the adnexa to twist on its axis may be predisposing factors [7,5].

Clinical signs of adnexal torsion include abdominal tenderness, which is reported in up to 88% of patients with adnexal torsion. Rebound and peritoneal signs are reported in only 12–27% of patients [10,11] . Clinical signs also may include a palpable adnexal mass [12]. However, a bimanual examination generally is not necessary or tolerated in pediatric and adolescent patients [5] .

Transabdominal ultrasonography is the imaging modality of choice. It has a sensitivity of 92% and specificity of 96% in detecting adnexal torsion [13]. When torsed, all ovaries are enlarged. Ultrasonography findings suggestive of ovarian torsion include unilateral ovarian enlargement, ovarian edema characterized by the presence of a hyperechogenic ovary with peripherally displaced follicles and echogenic stroma, free fluid, and a coiled vascular pedicle (referred to as the "whirlpool sign") [12] . The whirlpool sign is highly specific but technically difficult to visualize on transabdominal ultrasonography. The use of Doppler studies in detecting adnexal torsion is limited because of their low sensitivity and operator dependency. **The presence of Doppler arterial flow does not rule out torsion [9] .**Ultrasonography is cheaper and has the same diagnostic performance from MRI and CT examinations [14] . MRI or CT scan be done if the results of an ultrasound examination are not clear. Focus therapy for ovarian cyst torsion is to maintain ovarian function and prevent other side effects such as bleeding, peritonitis,and adhesion formation. Oophorectomy is only performed on necrotic/gelatinous tissue.Laparoscopy is a preferred procedure with many benefits, including a lower risk of wound complications, less pain and postoperative ileus, shorter hospitalization, reduced adhesion formation, and faster return to normal activities.

Conclusion:-

Ovarian cyst torsion can occur at any age. Therefore a high index of suspicion coupled with radiographic evidence and clinical findings helps in early diagnosis,prompt intervention thus reducing morbidity resulting from adnexal torsion.

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