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CASE REPORT ON MASSIVE RIGHT OVARIAN EDEMA IN ADOLOSCENT

Obstetrics & Gynaecology

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ABSTRACT

Ovarian edema is an unusual clinical quiddity, creating a consequence challenge as it is very huge and easily misinterpret as neoplasm. In this case, a 19-year-teenage girl presented with a right sided localised abdominal pain in addition to episodes of vomiting on and off for past 1 month. On per abdominal examination, she had a vague mass felt in the right iliac fossa associated with tenderness present in the right iliac fossa, umbilicus and suprapubic region . MRI revealed Right ovarian mass neoplasm, thickening and twisting of pedicle possibly torsion with cystoglandular hyperplasia with mild free fluid in pelvis. Tumour Markers were done and found to be normal. With the diagnosis of ovarian neoplasm, laparotomy was performed, and intraoperative frozen section excluded malignancy with differentials suggesting of fibromatosis/right ovarian complex cyst/massive right ovarian edema. The patient underwent unilateral salpingo-oophorectomy. Histopathological report was found out to be Right ovarian edema. Right ovarian edema should be suspected in women at the adolescent and reproductive age so that these young patients will be treated by providing fertility preservation options which is mandatory.

KEYWORDS

Fertility preservation surgery, massive ovarian edema, young patient

INTRODUCTION

Massive ovarian edema resembles solid tumour like disease in which fluid collection builds up inside the ovarian tissue results in enlargement of unilateral or bilateral ovary and it could result in partial or intermittent torsion of the ovary in which blood supply and lymphatic drainage to the ovary is blocked. It can also occur during the pregnancy associated with torsion of ovary. However, etiology is unclear due to multiple causes. This condition is often diagnosed lately and often it will be misdiagnosed as malignancy which result in overutilization with hormonal imbalance and loss of fertility. In our case report, we strongly emphasize preoperatively suspicion of conservative management in adolescent girls.

Case Report

A 19 year teenage girl presented with a right sided localised abdominal pain associated with 4 episodes of vomiting for past 1 month. She has regular menstrual cycle and past medical and surgical history were uneventful. Her vitals were stable.On Per abdomen examination , a vague mass of size 10*8 cm found in the right iliac fossa , tenderness present on right iliac fossa, umbilicus and suprapubic region. Per Rectal examination shows boggy fullness felt anteriorly with rectal mucosa free. Ultrasonogram shows uterus of size 76 *46*38mm , right ovary could not be imaged separately as a well defined mixed echoic lesion measuring of size 11.4* 6.9 cm noted in the right adnexa. MRI abdomen and pelvis shows uterus of size 7*3.8* 4.4cm , A Large well defined T1 Hypointense ,T2 /STIR Hyperintense lesion noted arising from the right adnexa measures 10.6* 10.1*10 cm.

Thickening at right lateral wall corresponds to 5mm and multiple thin septation and strands radiating from it. Thickening and twisting of pedicle of lesion noted suggestive of right ovarian torsion and there is possibility of mucinous cystadenoma with mild free fluid in pelvis. The serum level of cancer antigen-125 (CA-125) (17.4 U/ml), alpha-fetoprotein (0.5 IU/ml), and β-human chorionic gonadotropin (β-HCG) (0.100 mIU/ml) were within normal limits. laparotomy proceeded with right salpingo oophorectomy which reveals massively enlarged right ovary with twice twisted pedicle with intact smooth capsule. Intraoperative frozen section was performed and which ruled out the malignancy.Ascitic fluid of 50ml was collected and found to be negative for malignant cells. Gross examination shows ovarian mass of size 10 *10 cm with attached fallopian tubes On cut section shows gelatinous cut surface oozing out thin gelatinous fluid. Small tiny cystic spaces noted. Rest appears edematous and pearly white.

Histopathological examination shows massive edema of the ovarian stroma with cystic follicles lined by granulosa cells. Focal areas show collections of theca cells with stromal leutinization and congested blood vessels with follicular cyst. Routine microscopy of peritoneal fluid were within normal limits. The final histopathological diagnosis suggests massive ovarian edema.[Figure 1].

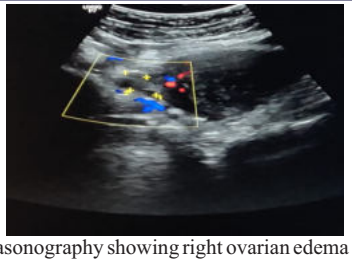

Figure 1- ultrasonography showing right ovarian edema

Figure 2- Intraoperative image of massive ovarian edema

DISCUSSION

Massive ovarian edema is a unusual tumor like condition which occurs in adolescent age group. [1]Majority of cases shows abdominal pain, abdominal distension, menstrual irregularities and infertility which is associated with low gonodatrophin level which indicates autonomous ovarian hormone production.[2] In study of Chervenak et al shows hormone production is due to stromal luteinization.[3] In kalstone et al study showed that luteinization will be caused due to mechanical stimulus by stretching of the ovarian stroma which is filled with edematous fluid.[4] In eden et al study, pathogenesis of hormonal production and edema is mainly due to the dearangement of the local paracrine factors such as insulin like growth factor ,cytokines and EGF.[2] Morphological examination shows pearly white , mucinous fluid after dissecting due to pressure of the edema. On microspic examination revealed hypocellular edematous stroma seen with compressed cortical edematous stroma with thin rim at the periphery of the mass.In study by young and scully showed 14 case had fibromatosis and 6 cases had massive ovarian edema whereas 11 cases had predominant pathology and 7 out of 25 cases had ovarian torsion.[5]In study of geist et al depicts abdominal pain in reproductive age with solid ovarian enlargement with underlying normal biochemical markers.[1]In study of cheng et al stated detorsion,wedge resection and plication of ovary symptomatically reduces the symptoms and there is no recurrence in the followup period [6]

CONCLUSION

Massive ovarian edema is unusual clinical entity seen in the young woman. As a gynaecologist , it is important to know the pathogenesis and etiology of the disease for the diagnosis of the disease and can be treated conservatively to prevent infertility and hormonal imbalance and managed as soon as possible for deciding the surgical options.

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Conflicts of interest
There are no conflicts of interest.

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