

CASE REPORT

MASSIVE OVARIAN OEDEMA A PSEUDO TUMOUR

¹ Indra Bhati, ² Sobika Rana, ³ Manisha Panwar,
⁴ Gulab Singh Choudhary, ⁵ Pukhraj Choudhary

Abstract

occurrence in women amid their second and third life decade. The edema can involve one or both ovaries as a result of partial torsion of the ovarian pedicle that meddles to the venous and lymphatic seepage of the ovary. Very few cases are reported in association with pregnancy. It poses a significant clinical challenge as it can be easily mistaken as neoplasm.

INTRODUCTION

Massive ovarian edema is a rare tumor-like condition affecting young women, first described by Kalstone in 1969.¹ Massive ovarian edemas can involve one or both ovaries² and it has been observed during pregnancy. [3] The etiology of this entity is not clear. It has been suggested that massive enlargement of the ovary without neoplastic change results from interference with the venous and lymphatic flow due to partial and complete torsion of the mesovarium, but not the arterial blood flow. As a result, there is stromal cell luteinization in the edematous ovary, occurring as a response to torsion and subsequent ischemia.² It is often important to recognize this condition as it is usually misdiagnosed as malignancy and hence results in overtreatment of younger patients with resultant loss of hormonal function and fertility.⁴ After extensive literature search we found that very few cases have been reported from Indian population especially in pregnancy & thus the importance of this case report.

1 Senior Professor, 2-5 Resident, Obst. & Gyne, Umaid Hospital, Dr S. N. Medical College Jodhpur.
Corresponding address: Dr. Indra Bhati E 22/63 Umaid Hospital Campus, Jodhpur. e-mail: drgirdharbhati@hotmail.com

CASE REPORT

We present a case of a primigravida 31 years with married life 13 years who conceived with treatment of infertility she gave history of irregular periods during treatment and was

diagnosed as having PCOD she presented to us at 30th weeks twin pregnancy with single intrauterine fetal demise and was diagnosed have pre-eclampsia and GDM so she was put on anti-hypertensive and insulin and regular monitoring.

At examination she was obese (BMI 35) with musculising features and sign of hyper androgenism. Finely she was delivered by C.S. at 37 weeks for fetal distress at C. S. On examination the uterus it was incidentally discovered the both of her ovaries were identically grossly enlarge uniformly with glistening surface and multiple purplish follicles seen all over the surface they were solid in consistency and was almost half the size of postpartum uterus 10cm X10 cm there was no ascites.

What to do with both ovaries was a dilima but then looking at apparently benign nature of the ovaries and her obst. Status we decided to take a wedge biopsy of ovaries and and leave them in situ to be closely follow up she had uneventful postoperative recovery and then she was discharged home in good condition with her follow twin.

At one month & 3 month follow up ovaries were monitored sonologically when they appear to regress in size initially to finally attain normal size at 12 weeks. The woman is presently asymptomatic

Wedge Biopsy: Revealed marked edema fluid oozing from cut surface with multiple follicle like

area surrounded in clear looking area. Tissue was not friable.

Final histopathological examination report revealed markedly edematous ovarian stroma with few dilated and normal ovarian follicles surrounded by luteinized cells at places and proliferating blood vessels. One section revealed ovarian follicle surrounded by small foci of fibromatosis. Peripheral rim of normal ovarian tissue was seen. No evidence of any tumor was seen on multiple sections. Routine microscopy and cytology of peritoneal fluid were within normal limits. The final histopathological diagnosis was massive ovarian edema.



DISCUSSION

Massive edema of the ovary is a rare tumor-like condition occurring in young women.⁵ Menstrual irregularities, abdominal distention, and infertility are found in the majority of cases. [6] Masculinization is a common presentation in many adult cases, precocious puberty in prepubertal girls, and some cases present with masculinization associated with low serum level of gonadotropins indicating autonomous ovarian hormone production as seen our case also. This hormone production is due to stromal luteinization as suggested by Chervenak *et al.*⁴ Another clarification for the edema and abnormal hormonal generation is an unsettling of a local paracrine factor, for

example, insulin-like development factor, epidermal development factor, or cytokines. [6]. Morphological examination of the ovarian mass appears gray-white, soft, and exuded watery fluid after cutting with a knife due to the pressure of the edema. On microscopic examination, Clusters of luteinized stromal cells are present in a minority of cases. Necrosis and hemorrhage are unusual.

Radiological imaging in most of the situations can be ambiguous, however with the addition of tumor markers such as β -HCG, lactic dehydrogenase, CA-125, and AFP; the differential diagnosis can be scaled down, differentiating condition from dysgerminomatous and mixed germ cell tumors. An intraoperative frozen section is always valuable at the time of surgery and can assist in performing fertility sparing surgery.

Geist *et al.* expressed that this element ought to be suspected in ladies who present with pain abdomen in a conceptive age aggregate with solid enlargement of the ovary, normal biochemical markers and surgical treatment should be undertaken after confirming the pathological diagnosis.^{5,8} However, when the state of ovarian edema is suspected at medical procedure, the proper treatment is wedge resection, evacuating at least 30% of the ovary to avoid the auxiliary reasons for the condition. Cheng *et al.* revealed that with de-torsion, wedge resection, and plication of the ovary, patient was successfully relieved of abdominal pain and experienced no recurrence during the follow-up period.

CONCLUSION

Massive ovarian edema is a rare cause of ovarian mass in women of a reproductive age group. For the clinicians and pathologist, it is important to know the benign nature of this disease, as it is easily mistaken for neoplasm and these young patients should be treated more conservatively to preserve their hormonal functions and fertility instead of sacrificing the ovaries. The gross characteristic appearance of uniformly enlarged solid ovaries with glistening surface showing multiple follicles at surface should also prompt for conservative management but mandated a proper follow up for resolution of size.

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