

# A Ruptured Granulosa Cell Tumor of Ovary in a Postmenopausal Women presented with Acute Abdomen

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## ABSTRACT

Gynecological emergencies may be encountered in postmenopausal ladies like that of ruptured ectopic pregnancy in the reproductive age group. We report a case of ruptured granulosa cell tumor in a 60-year-old woman who presented with acute abdomen and hemoperitoneum.

**Keywords:** Postmenopausal women, Granulosa tumor, Acute abdomen.

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## INTRODUCTION

Adult granulosa cell tumor (GCT) of the ovary is a hormonally active, stromal cell neoplasm that is distinguished by its ability to secrete sex steroids, such as estrogen. Patients may present with vaginal bleeding caused by endometrial hyperplasia or uterine cancer as a result of prolonged exposure to tumor-derived estrogen. In addition, GCT is a vascular tumor that may occasionally rupture and result in abdominal pain, hemoperitoneum and hypotension, mimicking an ectopic pregnancy in younger patients. We report an interesting case of GCT in a postmenopausal woman with acute abdomen and hemoperitoneum.

## CASE REPORT

A 60-year-old, P4L4, all FTND, LCB 33 years back was admitted in emergency hours with complaints of acute abdominal pain. She gives history of irregular postmenopausal vaginal bleeding since 1 year. Patient had obtained menopause 16 years back. On examination, the lady was found pale with pulse rate of 120/minute and blood pressure of 80/50 mm of Hg. Per abdominal examination revealed severe tenderness throughout the whole abdomen. Decision for emergency laparotomy along with resuscitation was taken. Emergency ultrasonography of abdomen and pelvis and Doppler study showed, uterus normal in shape, size and echotexture, endometrium was normal with normal vascularity of uterus and endometrium. Right ovary showed complex adnexal lesion of size 48 × 44 mm with cystic component with thick internal septations. The lesion shows peripheral vascularity with vascularity in septi with raised RI. Left ovary was normal. On laparotomy, patient had hemoperitoneum of approximately

200 cc. There was a right ovarian cyst of size approximately 4 × 4 cm and the cyst wall had ruptured. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. Histopathology showed granulosa cell tumor of right ovary and corpus luteal cyst of left ovary. Both tubes unremarkable with chronic cervicitis. Omental biopsy and peritoneal fluid was negative for neoplastic infiltration. She had an uneventful postoperative period and was discharged home on 8th day with a plan of starting chemotherapy bleomycin, etoposide and cisplatin for a minimum of 3 to 4 cycles.

## DISCUSSION

Granulosa cell tumors of ovary are rare neoplasm accounting for approximately 1.5 to 3% of all ovarian malignancies.<sup>1</sup> They belong to the sex cord stromal tumors and can be divided into adult type (95%) and juvenile type (5%) based on histologic findings.<sup>2</sup> They occur at any age and vary in size. In 6 to 10% of cases, tumor rupture causing acute abdominal pain can be the presenting symptom.<sup>3,4</sup> Because, these tumor produce estrogen, these women have abnormal menstruation. They may suffer amenorrhea or irregular and heavy vaginal bleeding. After menopause, elevated estrogen suppresses follicular stimulating hormone and these women often do not complaint of vasomotor symptoms. It is usually unilateral in 95% of cases as in this patient.<sup>5</sup> In developing countries, where tumor markers, such as inhibin and calretinin, are not available, appropriate staging laparotomy and tissue biopsy for histology should be carried out. Most women survives from these tumors with the survival rate ranging from 88 to 93%.<sup>6</sup> These tumors rarely metastasize. However tumor size, surgical stage and cellular atypia and rupture affect the prognosis. There is no role for adjuvant chemotherapy on a routine basis. For those women with macroscopic or microscopic residual disease, (i.e. stage II-IV) cisplatin-based chemotherapy has been most commonly utilized. Most authors now recommend the use of bleomycin, etoposide and platinum (BEP) for a minimum of 3 to 4 cycles. Since frequent late recurrence is hallmark of granulosa cell tumor, long-time follow-up should be emphasized.

## CONCLUSION

Recognizing that gynecological emergency can arise even in postmenopausal women, clinician must be prompt in managing such complications. Proper health education and counseling is imperative, if we have to reduce delays in presentation of patients to hospitals in our setting.

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