Case report

How to Approach to Torsional Adnexal Mass in a Geriatric Age Woman: A Case Report and Literature Review

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Abstract

We aimed to present how to approach to the postmenopausal torsional adnexal masses, accompanied by a case report and literature review. A 90-year-old geriatric age woman with G5P5 admitted to emergency department with complaints of nausea, vomiting and abdominal pain. We detected a tumoral mass with solid component and irregular surface suspected malignancy in the midline of the pelvis. Laparotomy was performed due to the suspicion of torsion and malignancy. We detected a approximately 25 cm torsional blue-purple colored tumoral mass originating from the right ovary and performed total abdominal hysterectomy and bilateral salpingo-oophorectomy. Pathology was reported as a sex cord stromal tumor with torsional. The patient was discharged with complete recovery on the 3rd postoperative day.

Keywords: Geriatric age, adnexal mass, torsion

Introduction

Adnexal torsion is defined as the rotation of the ovary and tuba on its own vascular axis. The true incidence is unknown but some studies it is reported in approximately 2.7% of gynecological emergencies.[1] It can occur in all age groups, but is mostly found in women of reproductive age and rarely occurs in postmenopausal women. Torsion is usually seen in women who have an ovarian cyst with moderate enlarged ovaries.[2] Malignant lesions are rare causes of torsion and constitute approximately 2% of torsion cases.[3] Malignancy potential of an adnexal mass is greater than its torsion possibility in postmenopausal women. We aimed to present a case of giant torsional adnexal mass seen in the geriatric age woman with the suspicion of malignancy.

Case report

A 90-year-old geriatric age woman with G5P5 admitted to emergency service of Trabzon Kanuni Research and Training Hospital Obstetrics and Gynecology Department with complaints of nausea, vomiting and abdominal pain. Her complaints started 5 days earlier and increased on the day of admission. When she applied hospital, her general condition was moderate her length 158cm, weight 58 kg. Vital signs were normal. We detected abdominal distension, tenderness and rebound in her abdominal examination. There was a normal uterus in transvaginal and abdominal ultrasound and computerized tomography but we detected a right-oriented, approximately 20x25 cm tumoral mass with solid component and irregular surface suspected malignancy in the midline of the pelvis (Figure A). All laboratory tests and tumor markers were normal. Laparotomy was performed due to the suspicion of acute abdomen and suspicion of malignancy. A blue-purple colored tumoral mass originating from the right ovary with approximately 25 cm diameter and four times torsioned around the adnexal stalk was detected (Figure B). A total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed, frozen sections was reported as a benign tumoral mass. Permanent sections were reported as a sex cord stromal tumor with torsional, ischemic necrosis and bleeding areas originating from the right ovary (Figure C-D). The patient was discharged with complete recovery on the 3rd postoperative day.
Discussion

Adnexal torsion is a gynecologic emergency, as the arteries, veins and nerves of the ovary are compressed within the torsion area. Feng et al reported that torsion occurred primarily in women of reproductive age (71.6%), with 17.4% of cases in children and adolescents and 11.0% of cases in postmenopausal women.[4] It was reported that the mean age of adnexal torsion in postmenopausal patients were 60 years.[5] Adnexal torsion has been reported very rarely in the geriatric age group. Our case is very rare in this aspect.

Torsion diagnosis may be delayed in the postmenopausal patients because there is no fertility concern in this age group. The most common symptom in postmenopausal women with adnexal torsion is sudden onset abdominal pain that is usually one side isolated, intermittent or continuous.[3][5][6][7] Cohen et al found that the duration of pain in postmenopausal patients was longer than premenopausal patients and the difference was due to the investigation of other causes of acute abdomen in these patients and they also showed that fever was more frequent in the postmenopausal group.[5] As additional symptoms, nausea, vomiting, and flank pain may also be seen in adnexal torsion.

Laboratory findings are generally normal in postmenopausal patients. Tumor markers should be studied in premenopausal patients because there is no fertility concern in this age group. The diagnosis of torsion is made by laparoscopy or as Cohen et al reported very rarely in the geriatric age group. Our case is very rare in this aspect.

The definitive diagnosis of torsion is made by laparoscopy or laparotomy with direct observation of the rotated ovary or adnexa.[9] Surgery is delayed in postmenopausal patients due to the possibility of malignancy. According to Eitan et al, postmenopausal women had an additional delay of 40 hours from admission to surgery when compared with premenopausal patients.[7] According to a multicenter study with 157 patients by Aykut Özcan et al, the main indication for surgery for the postmenopausal women was pelvic mass (58% vs. 40%), while for premenopausal women the main indication was suspicion of torsion (55% vs. 2%).[4]

Histological findings are usually reported as cystadenoma in postmenopausal patients with torsion (Table 1). In our cases pathology were reported as a sex cord stromal tumor that account for approximately 8% of all ovarian tumors. Our case was in the thecoma-fibroma group that is mostly benign of sex cord-stromal tumors. Malignancy has been reported up to 20 percent in postmenopausal patients.[7] Therefore, it is reasonable to perform salpingo-oophorectomy to eliminate malignancy and prevent recurrence. Extensive surgeries are more frequent performed in postmenopausal period than premenopausal (Table 1). Hysterectomy may be added to surgery due to the possibility of malignancy, uterine or ovarian fibroids and additional diseases.

The masses seen in the postmenopausal period should be frozen section during the operation. Staging procedures should be performed due to the possibility of false negative frozen section and the gross appearance of the ovary which elevated clinical suspicion of cancer during surgery.[7]

Table 1: Presenting symptoms, signs and operative characteristics. Among pre-and postmenopausal women with adnexal torsion. ([Hysterectomy bilateral salpingo-oophorectomy (TAH-BSO), ultrasonography (USG), computed tomography (CT), number (n))]

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<tbody>
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<td><strong>Postmenopausal</strong></td>
<td><strong>Premenopausal</strong></td>
<td><strong>Postmenopausal</strong></td>
<td><strong>Premenopausal</strong></td>
<td><strong>Postmenopausal</strong></td>
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<tr>
<td>Age</td>
<td>55 (50–60)</td>
<td>29 (22–33)</td>
<td>63.4±12.5</td>
<td>59.2 ± 12.1</td>
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<tr>
<td>Common symptom</td>
<td>Continuous dull pain</td>
<td>Acute-onset sharp pain</td>
<td>Abdominal pain</td>
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<td>Time to surgery intervention (h)</td>
<td>24 (13.5-48)</td>
<td>6 (4–12)</td>
<td>75.5±67.6</td>
<td>24.4±40.6</td>
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<td>Main surgical indication</td>
<td>Pelvic mass (94.3%)</td>
<td>Suspected torsion, 23(77.1%)</td>
<td>Pelvic mass 14(58%)</td>
<td>Suspected torsion, 73 (55%)</td>
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<td>Malignancy</td>
<td>4 (9%)</td>
<td>1 (0.4%)</td>
<td>1 (3.0%)</td>
<td>5(2.4%)</td>
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<td>Laparoscopic surgery</td>
<td>50%</td>
<td>84.5%</td>
<td>22(62.8%)</td>
<td>4 (16%)</td>
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<td>Surgical procedures</td>
<td>TAH-BSO 17(38.5%)</td>
<td>Detorsion 26(74.2%)</td>
<td>Detorsion 153(50.6%)</td>
<td>TAH-BSO 15(56%)</td>
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<td>Histological findings</td>
<td>Cystadenoma 10(30.3%)</td>
<td>Functional cyst 46(22.1%)</td>
<td>Cystadenoma 12(48%)</td>
<td>Malignancy 6(22%)</td>
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<td>CT imaging</td>
<td>CT</td>
<td>CT</td>
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<td>USG findings</td>
<td>Imaging 6(2.7%)</td>
<td>Imaging 15(34%)</td>
<td>Complex mass 56(25.4%)</td>
<td>Complex mass 15(45%)</td>
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**Figure A:** It can be seen approximately 20x25 cm, right-oriented, tumoral mass with solid component and irregular surface in CT

**Figure B:** It can be seen approximately 25 cm torsional, blue-purple colored, tumoral mass originating from the right ovary

**Figure C:** Tekoma - Fibroma, ischemic necrosis areas (10XH-E).

**Figure D:** It can be seen tumor cells forming fusiform shaped and transverse bundles. 20XH-E.

**References**


