International Journal of Innovative Research in Medical Science (IJIRMS)
Volume 04, Issue 09, September 2019,
https://doi.org/10.23958/ijirms/vol04-i09/747

Case report

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

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Received 06 August 2019; Accepted 04 September 2019; Published 26 September 2019

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-oferectomy. Pathology was reported as a sex cord stromal tumor with torsional. The patient was discharged with complete recovery on the 3rd postoperative day. Adnexal torsion is a gynecologic emergency. It should be considered in postmenopausal women who present with abdominal pain and adnexal mass.

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 irreguler 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-oferectomy 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 postmenopausalwomen 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 with complicated cystic mass and in patients with postmenopausal solid mass asour case. Ultrasonography is frequently used in the diagnosis of torsion. The findings of ultrasonography are generally ovarian mass, unilateral ovarian enlargement, free fluid in cul-de-sac and uniform peripheral cystic structures.[8] Postmenopausal patients usually have a complex mass in ultrasonography (Table 1). Doppler ultrasonography may be a marker for ovarian torsion of ovarian vein flow, decreasing or not. But it is mostly seen in premenopausal patients (Table 1).Magnetic resonance imaging can be useful in the diagnosis of torsion but is not routinely used because it is expensive.[9] Computerized Tomography (CT) is not typically used to evaluate ovarian torsion. However, as in our patient, CT can be chosen as the first study in patients with acute abdomen, pelvic pain and adnexal mass.[8]

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. 24%).[6]

Histological findings are usually reported as cystadenoma in postmenopausal patients with torsion (Table 1). In our cases pathologywere reported as a sex cord stromal tumor thataccount 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 salpingooforectomy to eliminate malignancy and prevent recurrence. Extensive surgeries are more frequented 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]

Although adnexal torsion is a rare event in postmenopausal women, it should be considered in postmenopausal women who present with intermittent or continuous abdominal pain, and are seen complex adnexal mass that is possible absent blood flow in ultrasonography. It isshould that keep in mind possibility of malignancy.

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

	Cohen et al(2016)		**H. Ganer Hermanet al (2015)**		**A. Ozcan et al (2015)**		**Eitan et al (2007)**	
	Postmenopausal n=44	Premenopausal n=220	postmenopausal n=35	premenopausal n=302	postmenopausal n=25	premenopausal n=132	postmenopausal n=27	premenopausal n=29
Age	55 (50–60)	29 (22–33)	63.4±12.5	32.1±14.9	59.2 ± 12.1	29 ± 8.6	63 (43–93)	21 13–39)
Common semptom	Continuousdullpain		acut-onset sharppain	abdominal pain				
Time tosurgeryinterval (h)	24 (13.5-48)	6 (4–12)	75.5±76.7	24.4±40.6	39.37 ± 27.62	11.91 ± 10.39	8	48
Main surgicalindication	-	-	Pelvicmass 19(54.3%)	Suspectedtorsiton, 232(77.1%)	Pelvicmass 14(58%)	Suspectedtorsiton, 73 (55%)	-	-
Malignancy	4 (9%)	1(0.4%)	1(3.0%)	5(2.4%)	1(3.0%)	5(2.4%)	6 (22%)	0
Laparoscopicsurgery	50%	84.5%	22(62.8%)	230(76.4%)	4 (16%)	65 (49 %)	2 (7%)	29(100%)
Surgicalprocedures	TAH-BSO 17(38.5%)	Detorsionandcystectomy/drainage 121(55%)	BSO 26(74.2%)	Detorsionandcystectomy/drainage 153(50.6%)	TAH-BSO 12(57%)	Detorsion + cystectomy 33(50 %)	TAH-BSO 15(56%)	Detorsiononly 11(38%)
Histologicalfindings.	-	-	Cyst adenoma 10(30.3%)	Functionalcyst 46(22.1%)	Cyst adenoma 12(48%)	Functionalcyst 52(42%)	Malignancy 6(22%)	Simple ovariancyst 7(37%)
CT imaging	CT	CT	-	-	-	-	-	-

	İmaging 6(2.7%)	İmaging 15(34%)						
USG findings	Complexmass 23(52.2%)	Complex mass56(25.4%)	Complexmass 15(45%)	Absentflow on Doppler (43%)	Complexmass10(40%)	Absentflow on Doppler 62(63%)	Complexmass 9(33%)	Simple cyst 13(48%)

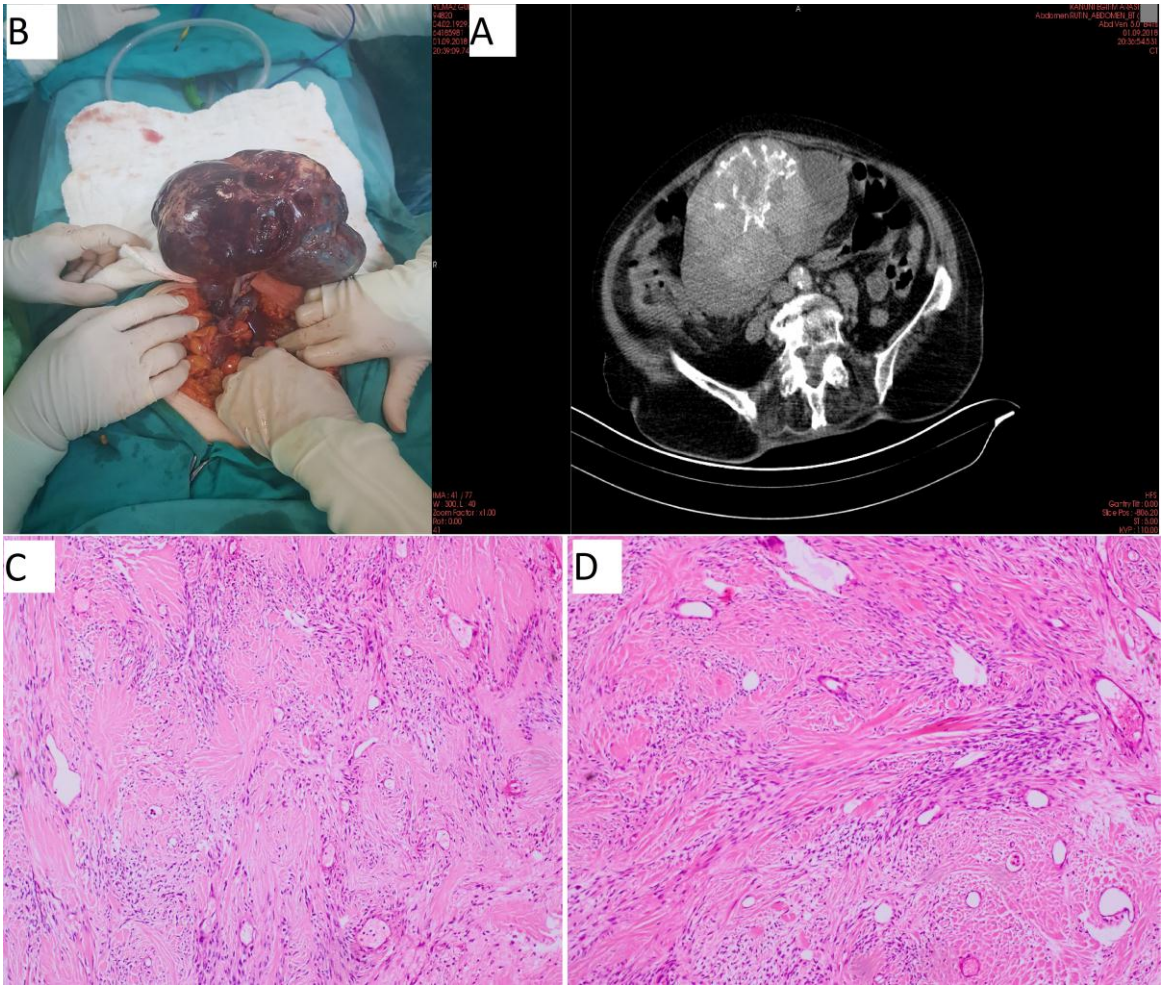

Figure A: It can be seen approximately 20x25 cm, right-oriented, tumoral mass with solid component and irreguler surface in CT
Figure B: It can be seen approximately 25 cm torsional, blue-purple colored, tumoral mass originating from the right ovary
Figure C: Tekoma -Fibroma, ischemic necrosis areas (10XH-E).
Figure D: It can be seen tumor cells forming fusiform shaped and transverse bundles. 20XH-E.

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