Case Series

Ovarian Torsion in Postmenopausal Women with varied Clinical Presentations — A case series

Karthiga Prabhu J[1], Shanmugapriya Chandrasekaran[2], Maitrayee Sen[3]

Ovarian Torsion, a gynaecological emergency though common in reproductive age group can also occur in extremes of ages. In the postmenopausal age group it may be diagnosed late or missed due to non-specific symptoms. Among 42 cases of adnexal torsion operated in a two year period in our institute, 5 were found in the postmenopausal age group (11.2%). Among the cases, there were two benign epithelial cell tumours, one granulosa cell tumour, one mature teratoma and histopathology couldnot be determined in a patient due to necrosis. In our case series only 2 out of 5 cases presented with severe acute abdominal pain suggesting a possibility of torsion and required immediate surgery. Remaining patients presented only with vague abdominal pain and bloating sensation which were nonspecific. In our case series all patients had undergone Laparotomy and proceeded with Abdominal hysterectomy and bilateral salpingo-oopherectomy. Two patients in our case series had huge ovarian mass which had undergone torsion. Adnexal torsion in postmenopausal women has varied presentations and malignancy risk should always be considered before surgery in the postmenopausal women.

[*J Indian Med Assoc* 2023; **121(11):** 40-2]

Key words **: Postmenopausal, Adnexal Torsion, Ovarian Torsion, Malignancy, Abdominal pain.**

Ovarian Torsion accounts for 3% of all gynaecologic emergencies. Among women undergoing surgical treatment for adnexal masses, Ovarian Torsion occurs in around 2%-15% of patients. Though it is considered common in reproductive-aged women it can also occur rarely in the postmenopausal women[1]. Diagnosis of ovarian torsion in the postmenopausal group may be delayed or missed due to non-specific symptoms. It maybe associated with increased risk of malignancy and complications associated with advanced age of the patient. Here, we are reporting 5 cases of Ovarian Torsion which occurred over a two year period in our institute.

Case 1

A 55-year-old postmenopausal multiparous lady presented to our emergency department with severe acute lower abdominal pain, fever and vomiting for a day. She hadattained menopause 5 years ago. On examination, she was febrile, tachycardic and a tender mass of size 10*8 cm was felt in the suprapubic region and right iliac fossa with guarding and rigidity. Her Total Leukocyte Count was 17000 with neutrophilic preponderance. Ultrasound showed a mass 10*10cm in the right adnexa with moderate free fluid. With a suspicion of Adnexal Torsion, emergency laparotomy was proceeded with. Intra-operatively there was a haemorrhagic cystic mass 10*7cm on right side which had undergone torsion once around the pedicle and another 5*5 cm ovarian cyst was present on the left side.Total abdominal hysterectomy with bilateral salpingo-oopherectomy was performed. Histopathology reported as serous cystadenoma.

Editor's Comment :

- Although torsion is not an usual phenomenon of postmenopausal ovarian tumour, it can occur irrespective of the size and histopathology of tumour.

Case 2

A 50-year-old postmenopausal multiparous lady who has attained menopause 2 years ago presented with vague lower abdominal pain for 6 months and postmenopausal bleeding on and off. On examinations her vitals were stable and a mass of size 10*7 cm was palpated in the suprapubic area with mild tenderness. On imaging she was found to have a solid ovarian mass 10*7 cm on the right side with no free fluid. Her tumour markers CA125 and CEA were found to be normal. On her pre-operative evaluation her total leukocyte count was found to be 13,600. Endometrial biopsy revealed proliferative phase endometrium. At laparotomy, intra-operatively there was torsion of right ovarian mass twice around the pedicle (Fig 1). Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. Histopathology was reported as granulosa cell tumour and she is on regular follow-up.

Department of Obstetrics and Gynaecology, SRM Institute of Science and Technology, Kattankulathur, Chengelpet, Tamilnadu 603203
[1]MD, Professor and Corresponding Author
[2]MD, Associate Professor
[3]DNB, Associate Professor

Received on : 28/09/2022
Accepted on : 12/10/2023

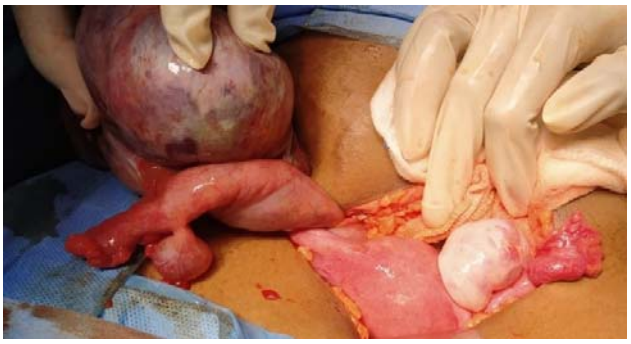

Fig 1 — Intraoperative finding of a solid right ovarian mass twisted twice around the pedicle

Case 3

A 67-year-old multiparous lady who is postmenopausal for 20 years presented to gynaecological out patient department with complaints of bloating and abdominal distension for 1 week. On examination there was a huge mass filling the abdominal cavity. In imaging a huge complex right ovarian mass 25*20 cm was seen. Other abdominal organs were normal and there was no free fluid. Her tumour markers were normal and she was planned for staging laparotomy. Her pre-operative evaluation showed mildly elevated white blood cell count 13,800. Intra-operative findings were a 25*20 cm right ovarian mass filling the abdominal cavity which had torsed around the pedicle once. The other ovary was normal. Histopathology confirmed it as a mature teratoma.

Case 4

A 55-year-old multiparous woman postcaesarean who has attained menopause 6 years ago presented with acute lower abdominal pain for 2 days. On examining she had tachycardia and mild abdominal tenderness on left iliac fossa. On bimanual examination a tender 8*8cm mass was felt in the right fornix. As she had acute symptoms and ultrasound findings were suggestive of torsion she was planned for emergency surgery. Her Total Leukocyte Count was markedly elevated. Intra-operatively, a 8*7 cm necrotic ovarian mass twisted thrice around its pedicle was seen. Uterus was totally plastered to the anterior abdominal wall and Pouch of douglas was obliterated. Total abdominal hysterectomy with bilateral salpingo-oopherectomy was done. Histopathology reported as haematosalpinyx with right Ovarian Torsion. Retrospectively her tumour markers were found to be normal. Probably the adhesions were due to chronic pelvic inflammatory disease.

Case 5

A 59-year-old postmenopausal lady presented with acute abdominopelvic pain for 1 day and abdominal distension for the past 3 months. She had attained menopause 18 years ago. On examination patient was obese and an abdominopelvic mass was felt in the suprapubic, right iliac fossa and right lumbar region with minimal free fluid. Imaging studies showed a thick walled cyst occupying the abdomen just short of xiphisternum. She had Leucocytosis with neutrophilc preponderance 86%. Her tumour markers were normal. She was planned for staging laparotomy and intra-operatively a left ovarian tumour of size 20*24 cm twisted around its pedicle was seen. She was proceeded with total abdominal hysterectomy with bilateral salpingo-oopherectomy (Fig 2). Histopathology revealed a benign mucinous cystadenoma.

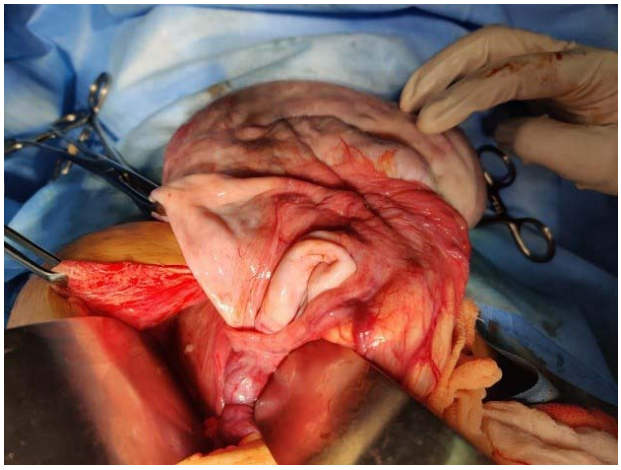

Fig 2 — Intra-operative picture of a large thickwalled ovarian cyst twisted around its pedicle

Discussion

Ram Eitan, *et al* in a retrospective cohort study found that among postmenopausal women with Adnexal Torsion 22% were malignant tumours, 11% were fibroma, 8% were cystadenomas and 8% were mature teratoma[2]. In our case series, we found two benign epithelial cell tumour, one granulosa cell tumour and one mature teratoma and all of them underwent torsion irrespective of their size and histopathology.

Though Adnexal Torsion is more common in reproductive age it can occur rarely in postmenopausal women. Among 42 cases of Adnexal Torsion operated in a two year period, 5 were found in the postmenopausal age group (11.2%). Zohreh Yousefi, *et al* found the incidence of Ovarian Torsion in postmenopausal women to be 22.6% with mean age of presentation as 59±5.8 years[3].

In our case series only 2 out of 5 cases presented with acute features suggesting a possibility of torsion and required immediate surgery. Remaining patients presented only with non-specific symptoms like vague abdominal pain and bloating sensation. Cohen, *et al* in a cohort study among postmenopausal women with Ovarian Torsion found continuous dull pain as the major presenting symptom in the postmenopausal group (57%), compared to acute-onset sharp pain in the pre-

menopausal group (86%)[4].

There was increased Total Leukocyte Count in all our cases with increased neutrophil count.

According to Herman, *et al* complex ovarian masses and larger ovarian masses were more common among postmenopausal patients[5]. In our case series also two patients had ovarian mass more than 20 cm.

Ovarian Torsion occur more commonly with a benign tumour and the incidence of Malignancy in Ovarian Torsion is reported in <2%[5]. In our case series malignancy was detected in one patient (20%). Malignant tumours less likely causes torsion as malignancy leads to the adhesion of the ovary with surrounding tissues.

According to Herman, *et al* postmenopausal women undergo extensive surgery including bilateral salpingo-oophorectomy with or without Total Abdominal Hysterectomy as opposed toconservative surgery in pre-menopausal surgeries[5]. In our case series all patients had undergone Abdominal Hysterectomy and bilateral salpingo-oopherectomy. Abdominal hysterectomy with Bilateral salpingo-oophorectomy was preferred in the postmenopausal age group probably due to increased risk of Malignancy and re-operation. Extensive surgery can be avoided where frozen section facilities are available[5].

According to Cohen, *et al*, laparoscopic surgery was preferred in the pre-menopausal group when compared to postmenopausal group (87.5% *versus* 50%)[4]. In our case series all patients had undergone laparotomy.

In our case series two patients with huge ovarian mass had undergone torsion. One was a solid ovarian tumour and the other was a thick walled ovarian cyst. Probably torsion with partial occlusion of vessel has occurred when the ovarian mass was small and the mass has grown continuously.

Conclusions

Adnexal torsion in postmenopausal women is an uncommon entity and torsion can present with varied clinical features. Malignancy risk should always be considered before surgery in the postmenopausal women necessitating extensive surgery.

References

1 Huang C, Hong MK, Ding DC — A review of ovary torsion. *Ci Ji Yi Xue Za Zhi* 2017; **29(3):** 143-47.
2 Eitan R, Galoyan N, Zuckerman B, Shaya M, Shen O, Beller U — The risk of malignancy in post-menopausal women presenting with adnexal torsion. *Gynecol Oncol* 2007; **106(1):** 211-4.
3 Yousefi Z, Farazestanian M, Mottaghi M, Pourmoghadam N — Ovarian Torsion in Postmenopausal Women and risk of malignancy. *Journal of Midwifery and Reproductive Health* 2015; **3(4):** 479-82.
4 Cohen A, Solomon N, Almog B, Cohen Y, Tsafrir Z, Rimon E, Levin I — Adnexal Torsion in Postmenopausal Women: Clinical Presentation and Risk of Ovarian Malignancy. *J Minim Invasive Gynecol* 2017; **24(1):** 94-7.
5 Ganer Herman H, Shalev A, Ginath S, Kerner R, Keidar R, Bar J, Sagiv R — Clinical characteristics and the risk for malignancy in postmenopausal women with adnexal torsion. *Maturitas* 2015; **81(1):** 57-61.