Epidermoid Cyst of Ovary: A Rare Entity

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Rare instances of epidermoid cyst of ovary have been reported in literature with incidence of <1% among all the ovarian tumors. It often mimics mature cystic teratoma of the ovary and needs extensive sampling and careful microscopic examination to rule out the presence of adnexal structures and other tissues. Most of the cases in literature were reported as an incidental finding, but large epidermoid cyst of the ovary is seen as a rare entity. We present one such quizzical case of a large epidermoid cyst of ovary occurring in a 44-year-old female presenting with multiple fibroids of uterus.

Keywords: Epidermoid cyst, Mature cystic teratoma, Ovary

INTRODUCTION

Ovarian tumors constitute a major challenge to pathological practice due to wide variety of histological types (benign and malignant) which are possible owing to embryological characteristics of the gonad.¹ Epidermoid ovarian tumors constitute <1% of ovarian surface epithelial tumors.² Most of the epidermoid cysts are asymptomatic and unilateral.¹ The origin of ovarian epidermoid cyst is still unknown.³ The possibility of origin from epithelial cell nests, of the type encountered in Brenner tumor is suggested. It is to be distinguished from mature cystic teratoma on thorough sampling by the absence of skin adnexae and other tissues.⁴ The existence of single large epidermoid cyst of ovary is a rare entity without any association with other tumors.

CASE REPORT

A 44-year-old female reported to the gynecology outpatient with a history of increased vaginal bleeding and mass per abdomen since 3 months. A series of investigations were done. Ultrasound of the pelvis revealed multiple uterine fibroids with uterus of 16 weeks size and a right ovarian unilocular cyst measuring 7 cm × 5 cm (Figure 1). The patient underwent a total abdominal hysterectomy and bilateral salphingo-oophorectomy.

Grossly, uterus and cervix measured 14 cm × 10 cm × 7 cm with the cervical length measuring 4.5 cm. Cervical lips were everted and hypertrophied. On cut section, multiple intramural and sub-serosal fibroids, which were easily shelled out and with a whorled appearance ranging from 0.5 × 0.5 cm to 6 × 6 cm, were seen. The left ovary and fallopian tube were grossly unremarkable and showed normal morphology. Right ovary showed a large cyst measuring 7 cm × 6 cm × 5 cm and both fallopian tube appeared normal. Outer surface of cyst was smooth, and cut section showed thick creamy white pultaceous material completely filling up the lumen without any septations. Cyst wall was thin and measured 0.3 cm in thickness. No papillary structures or any solid areas or any other adnexal structures were shown in Figure 2.

On histopathological examination, endometrium was benign nonsecretory in nature with the myometrium showing multiple leiomyomatosis. Cervix showed chronic cervicitis with squamous metaplasia. Left ovary showed a small corpus luteum while both fallopian tubes were normal. Sections from the large right ovarian cyst wall showed a lining of benign stratified squamous epithelium (Figure 3). No skin adnexae, hair or tooth structure was found. The right ovarian cyst was sampled extensively but no skin adnexae or any other tissue could be demonstrated. However, extensive keratin deposition was seen within the cyst (Figure 4). Based on these findings a diagnosis of epidermoid cyst of right ovary was made.
Epithelial epidermoid ovarian tumors represent <1% of ovarian surface epithelial tumors. Most of them represent an incidental finding in the study of hysterectomy specimens. The differential diagnosis of epidermoid cysts includes mature cystic teratoma of ovary. The WHO describes the epidermoid cyst as the small epithelioid cell nests that resemble Walthard cell nests suggesting epithelial origin rather a teratomatous origin. Histogenesis is uncertain and the proposed hypotheses include cystic dilatation, squamous metaplasia of surface epithelial inclusion cyst, development of monodermal teratoma and mucous metaplasia of endometriotic cyst. Khedmati et al., study showed that epidermoid cyst of ovary is heterogeneous in origin and may arise from teratoma, Brenner tumor or endometriosis. However, epidermoid cyst is entirely benign and shows little clinical significance. It is important to avoid misdiagnosis of mature cystic teratoma a case of epidermoid cyst because of the rare occurrence of the latter and extensive sampling to rule out the presence of adnexal structures as was done in this case is mandatory. Furthermore, in contrast to dermoid cysts, which usually present at an earlier age and have a larger size, most epidermoid cysts present as small to medium size cystic lesions and significantly at an older age. Most epidermoid cysts that have been reported in literature are smaller in size, approximately 2-6 mm and usually unilateral. However, in the present case cyst was large and measured 7 cm in size. This case is highlighted due to its rarity, large size and unsolved mystery of the origin of epidermoid cyst of ovary.

CONCLUSION

Epidermoid cyst of the ovary is a rare tumor often discovered incidentally on histopathological examination. Thorough sampling is needed to rule out mature cystic teratoma. It mandates a prompt recognition since the chances of missing it are high owing to its rarity.
REFERENCES


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