



A RARE CASE REPORT – EPIDERMAL CYST OVARY

Pathology

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ABSTRACT

Epidermoid cysts of ovary are exceptionally rare benign cystic lesions which are exclusively lined by stratified squamous epithelium without any adnexal structures. They are usually an incidental finding on examination of hysterectomy specimens. It is essential to differentiate these cystic lesions from dermoid cysts and immature teratomas due to different modes of treatment of these entities. Histogenesis of epidermoid cysts is still not clear, however some authors have described the origin of these lesions from epithelial cell nests that are encountered in Brenner tumours, from pluripotent coelomic epithelium etc. We herein report a case of an epidermoid cyst in a 46 year female who presented with complaints of increased vaginal bleeding and lower abdominal pain and was operated for adenomyosis, but on histopathological examination, epidermoid cyst was an incidental finding.

KEYWORDS

Epidermoid cysts, Epithelial cell nests, Hysterectomy

INTRODUCTION-

Epidermal cysts of ovary are exclusively lined by mature stratified squamous epithelium, distinguished from mature cystic teratoma by the absence of adnexal structures and other tissues, filled with keratin material, and are exceptionally rare benign lesions.⁽¹⁾ It is an important entity not only in the differential diagnosis of mature cystic teratoma, but also because of the distinct possibility of that some of these lesions were mature cystic teratomas in which the skin adnexal components were either missed or absent.⁽¹⁾ Commonly found ovarian cysts are functional cysts, mostly seen in reproductive age group, dermoid cysts, chocolate cysts, cystadenoma cysts and polycystic ovarian diseases.⁽²⁾ Epidermoid cyst of ovary is an uncommon incidental finding in hysterectomy specimen.⁽³⁾

CASE REPORT-

A 46 years old female presented with the complaints of lower abdominal pain and increased bleeding per vagina. Ultrasonography of the pelvis and the abdomen revealed that she had adenomyosis and a large left ovarian cyst. The patient underwent total abdominal hysterectomy and left salpingo oophorectomy and specimen was sent for histopathological examination.

Grossly the uterus and cervix measured 6 x3x2.2 cm. On cut section endometrium measured 0.2cm and myometrium measured 1 to 1.4 cm with small foci of adenomyosis. Cervix was unremarkable and, measured 3cm in length. Left sided tube and ovary measured 4.5x0.5 cm and 7x1.5 cm respectively. On cut ovary was filled with pultaceous material. Microscopic examination of the specimen revealed foci of adenomyosis in myometrium and chronic cervicitis. Sections from left ovary showed a cystic wall lined by keratinised stratified squamous epithelium with flakes of keratin but adnexal structures were not seen. The lumen of the cyst was filled with keratin material. On the basis of these histopathological findings diagnosis of epidermal cyst of ovary was made.

DISCUSSION-

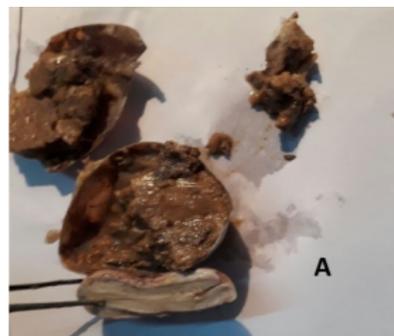
Epidermal cyst of ovary is a rare benign lesion, incidentally found in hysterectomy specimen. Histogenesis of epidermal cyst is not very clear however there are some studies which have suggested that these lesions are originate from metaplasia of coelomic epithelium of ovary.⁽⁴⁾ Fan et al in their series of eight cases described that epidermal cysts are actually monodermal teratoma and should be classified as such.⁽⁵⁾ Another series of three cases reported by Young and Scully has been described the origin of epidermal cysts from the epithelial cell nests of the type encountered in Brenner tumours.⁽⁶⁾ Azzena et al had reported a case in combination with primary carcinoid of ovary, whereas a case

report of epidermal cyst in association with endometrioid carcinoma has been described by Peters et al^(7,8). A very interesting case of cystic mature teratoma and epidermal cyst in combination with granulosa cell tumour was reported by Giunta et al.⁽⁹⁾ A largest clinicopathological study of 18 cases of epidermal cysts in comparison to 120 mature cystic teratoma was conducted in 2009 and the authors had concluded that an epidermal inclusion cyst of the ovary as described by histology, was a heterogeneous group and a pure epidermal cyst probably represents less than 1% of the ovarian epithelial tumours.⁽¹⁰⁾ Two cases with malignant changes involving an ovarian epidermal cysts have also been reported in the literature.⁽¹¹⁾ Several studies have been done but the histogenesis of ovarian epidermal cyst is still unknown and the origin of cyst from metaplasia of coelomic epithelium is regarded as most suitable theory of histogenesis among all of these.

It is very essential to differentiate ovarian epidermal cyst from dermoid cyst because of different mode of treatment. Most of the cases reported in literature from all around the world, represented an incidental finding during the study of hysterectomy specimen.

CONCLUSION-

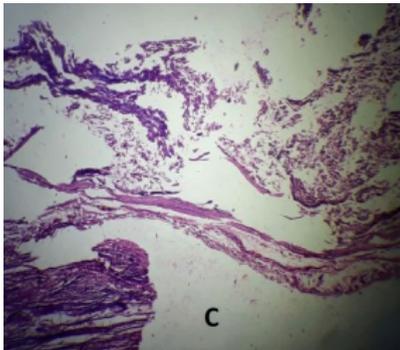
We have reported this case due to its rare incidence, surprise histopathological findings and to avoid the misdiagnosis of mature cystic teratoma. The diagnosis of ovarian epidermal cyst should only be made after an extensive thorough sampling of ovarian tissue and presence of any adnexal structures and other tissues must be completely ruled out before making the diagnosis of epidermal cyst of ovary.



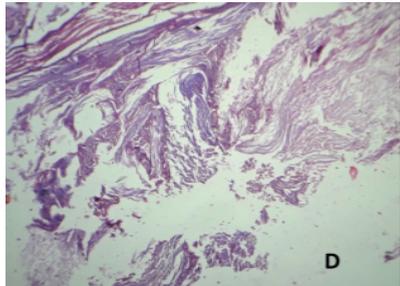
A-Gross features of atrophied uterus and cervix with one sided adnexae (large cystic ovary and fallopian tube)



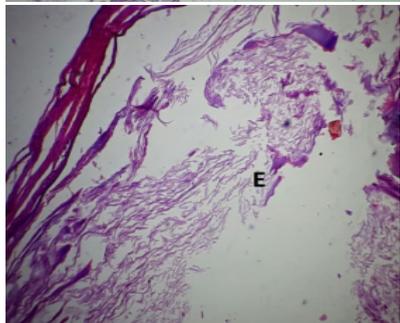
B-Gross features of cut open cystic ovary- filled with flaky keratinous material and wall is thickened



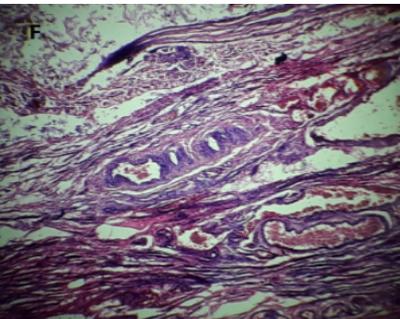
C -H & E microphotograph 40X- shows cyst lined by stratified squamous epithelium with lamellated keratin material



D & E -H & E microphotograph 40X- shows lumen of cyst filled with keratinous material



F-H & E microphotograph 40X-dilated and congested blood vessels



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