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Pregnancy Luteoma Along With Benign Cystic Teratoma: A Case Report.

Vijay Kumar Bodal^{1*}, Manjit Singh Bal¹, Sarbhjit Kaur², Manjit Kaur Mohi², Anudeep Gill¹,
and Mohanvir Kaur¹.

¹Department of Pathology, Government Medical College, Patiala, Punjab, India.

²Department of Obstetrics and Gynecology, Government Medical College, Patiala, Punjab, India.

ABSTRACT

It is a rare to find simultaneous benign cystic teratoma and pregnancy luteoma in an ovary. Mature cystic teratoma is the most common type of ovarian germ cell neoplasm. About 0.8% to 12.8% of reported cases of mature cystic teratoma have occurred during pregnancy. Pregnancy luteoma is a distinctive, non-neoplastic lesion of pregnancy, characterized by solid proliferation of luteinized cells, and tumour-like ovarian enlargement that regresses during puerperium. To date fewer than 200 cases of pregnancy luteoma have been reported. We presented a rare case of a multiparous 26 year old gravid female who presented with mass and moderate pain in abdomen.

Keywords: pregnancy, luteoma, teratoma, benign cyst.

**Corresponding author*

CASE HISTORY

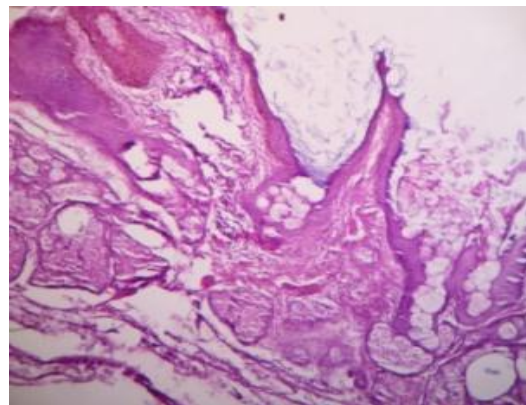
A 26 years old female, gravida 3 para 2, presented with amenorrhea since 3 months and palpable mass with moderate pain in the abdomen for 2 months. Clinical and radiological diagnosis of dermoid cyst ovary was made and intrauterine pregnancy was confirmed on ultrasound. Laparotomy was done and ovarian mass was removed which was subjected to histopathological examination.

RESULTS

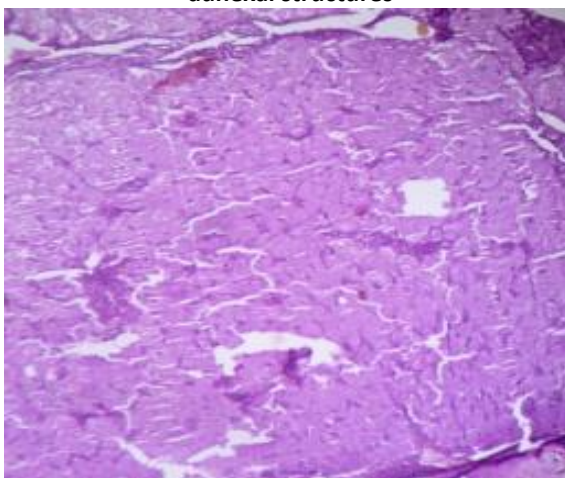
On gross examination the mass was in the form of globular gray-white, gray-brown soft tissue measuring 7×5×4 cm in size. On cutting cheese-like material came out. The cut-section showed cystic as well as solid areas and hair were seen arising from a protuberance on the cyst wall. A discrete gray-brown area was also identified (figure-1). Tissue was fixed in 10% formalin solution for 6-24 hours. After processing, paraffin blocks were prepared and sections of 4-5 microns thickness were cut, stained with routine Haematoxylin and Eosin (H and E) and were examined under the microscope.



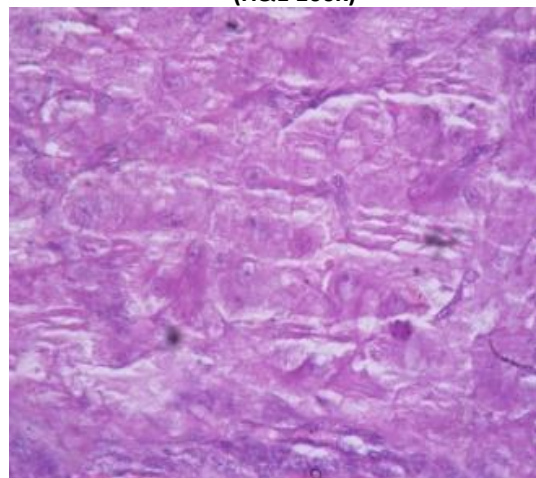
**Figure 1-Gross picture of ovarian mass
Showing hair arising from cyst wall
adnexal structures**



**Figure 2-Microscopic picture showing
stratified squamous epithelium and
(H&E 100x)**



**Figure 3-Microscopic picture showing
Corpus luteal cells (H&E100x)
cytoplasm cells**



**Figure 4-Microscopic picture showing
corpus luteal with abundant eosinophilic
(H&E 400x)**

Microscopically: Examination of multiple sections revealed a cyst lined by stratified squamous epithelium containing sebaceous material, nervous tissue, respiratory epithelium, calcified material, skin & adnexal structures and mature mesenchymal tissue, confirming diagnosis of benign cystic teratoma (Figure-2). Sections from the gray-brown area showed corpus luteum cells forming trabecular pattern, suggesting pregnancy luteoma (Figure-3 & 4).

DISCUSSION

Pregnancy luteoma is a tumor-like condition, frequently asymptomatic, seen as an incidental finding during the cesarean section or tubal ligation procedures. It most likely arises from hCG-induced proliferations of luteinized ovarian stromal cells; however, some authors favour origin from luteinized follicular granulosa and theca cells. Grossly, pregnancy luteomas are solid, fleshy and red to brown nodules ranging from microscopic to upto 20 cm in diameter (average of 6.6 cm). The lesions are multiple in almost half and bilateral in one-third cases. Haemorrhagic foci are common. A separate corpus luteum may also be visible. Histologically, it is sharply circumscribed, well demarcated from the ovarian stroma and consists of luteinized steroid cells occasionally arranged in trabeculae or follicular pattern. The cells are intermediate in size between luteinized granulosa cells and luteinized theca cells of adjacent follicles. The cells have abundant eosinophilic cytoplasm and central, slightly hyperchromatic nuclei. Nucleoli may be prominent. Mitotic figures may range up to 7 per 10 high-power fields [1-5].

Mature cystic teratoma is the most common ovarian teratoma and the most common ovarian germ cell neoplasm. It may be encountered at any age, from infancy to old age. When symptomatic, it manifests as abdominal pain, abdominal mass and abnormal uterine bleeding. In about 10% cases, it is diagnosed during pregnancy. It may be bilateral in 8-15% cases. The size varies from 0.5 to more than 40 cm but the majority range from 5-10 cm. It is round, oval or globular, soft and fluctuant with a smooth gray-white surface. Cut surface reveals a cavity filled with fatty material and hair. Projecting into the cavity from the cyst wall is a protuberance composed of a variety of tissues. The hair arises from this protuberance and bone and teeth tend to be located within it. The cavity is mainly lined by keratinized stratified squamous epithelium (skin) and dermal appendages are common. Bronchial epithelium, gastro-intestinal epithelium, neural tissue, ganglia, bone, cartilage, muscle and fatty tissue are also often encountered [3].

CONCLUSION

Histopathologic features were those of benign cystic teratoma; ovary, along with pregnancy luteoma.

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