ORIGINAL RESEARCH PAPER

Histopathology

KEY WORDS:

OVARIAN FIBROMA WITH SEROUS CYSTADENOMA- A RARE CASE REPORT.

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Background:

The classification of ovarian tumours is primarily morphologic and based on the cytologic features of the tumour. There are mainly four types: -1) Surface- epithelial-stromal tumors, 2) Germ cell tumours,3) Sex cord-stromal tumours and4) Germ cell- sex cord stromal tumours. Epithelial tumours numerically are the most important group of neoplasms and are derived from Ovarian surface epithelium. They are subclassified based on cell types as serous, endometrioid, clear cell, mucinous or transitional (Brenner). Tumors with serous differentiation represent 46% of all surface epithelial stromal ovarian neoplasms of which 50% are benign serous tumors [1]. These are usually cystic and tend to have thin walls and lack solid areas [2]. Serous tumors make up about 25% of all ovarian tumours and most occur in adults and are subclassified as low-grade and high-grade serous tumours. Low grade serous neoplasia encompasses benign and borderline serous tumours. Benign serous tumours are grossly identified by characteristic cystic masses, usually unilocular, containing a clear but sometimes viscous fluid. Papillary formations are often present, most of them protruding into the cavity, but some occasionally occur on the outer surface. Microscopically a single layer of cuboidal to columnar cells are seen lining the wall of the cysts and the papillae showing no atypia, architectural complexity, cellular stratification or invasion. Hobnail cells can be present.

On the other hand, Sex-Cord-Stromal tumours are subclassified as 1) Granulosa Cell Tumours 2) Fibromas 3) Fibrothecomas 4) Thecomas 5) Leydig- Cell Tumours 6) Steroid Cell tumours and 7) Mixed tumours (Gynan droblastomas). Fibromas are common ovarian tumours presenting mostly as unilateral, solid, lobulated, firm, uniformly white masses, usually not accompanied by adhesions with an average diameter of 6 cms. Myxoid or edematous changes may also be seen. Microscopically they are composed of closely packed spindle stromal cells arranged in feather-stitched or storiform pattern.

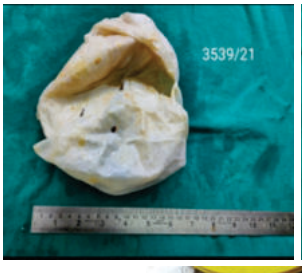
Hyaline bands, globules and edema may be present. There are certain types of Fibromas such as Fibromas exhibiting a high degree of cellularity can be reffered to as cellular fibromas. Some Fibromas have conspicuous mitotic activity and these may be diagnosed as mitotically active cellular fibromas. They can be frequently associated with ascites and sometimes in combination with right sided pleural effusion which is known as Meig's Syndrome. Fibromas are benign and oophrectomy is curative.

We are hereby reporting a rare case of the combination of serous cystadenoma and ovarian fibroma which is not mentioned in the gynecologic pathology literature.

Case Summary:

A 55 year old female presented to the OPD of the Department of Surgery with the complaints of abdominal swelling and distension since 7 months accompanied with abdominal pain since 2 to 3 days. On local examination a cystic swelling which was non-tender in nature and diffusely enlarged was identified, superiorly reaching upto epigastrium and inferiorly upto hypogastrium. USG report showed large abdominal cyst with Bulky Uterus. CECT revealed large, oval shaped, solid-cystic mass in lower abdomen and pelvic cavity, extending upto epigastrium. The inferior part of the swelling was adherent to the right adnexa of the ovary along with Ureterocoele and Hepatic Cysts. Her CA-125 and Alpha Fetoprotein levels were in normal range. On the grounds of suspicion of a malignant neoplasm, the cyst was resected out and sent to us for histopathological evaluation.

We received a single large cystic mass weighing 3.3 kgs and measuring 23x18x10 cms in greatest dimensions. The outer surface was smooth and glistening, grayish-white in colour, showing few prominent blood vessels. On cut- solid areas and attached cysts were identified. Solid area measures 9x8x4cms, white in color and firm in consistency with attached cyst measuring 18 cms in diameter, which was unilocular. Reddish fluid, serous in consistency measuring about 2 litres in volume flowed out. The cyst wall thickness measures from 0.1 to 0.3 cm. Inner wall was smooth with no papillary excrescences.



Microscopic findings were as follows: Sections studied showed solid and cystic areas. Solid area showed spindle cells arranged in fascicular pattern. Individual cells were uniform and had elongated nuclei without any atypia and mitotic activity with scanty eosinophilic cytoplasm. Sections from the cystic areas were lined by flattened epithelium. Cyst wall was composed of fibrocollagenous tissue, blood vessels and inflammatory cells.

DISCUSSION:

Since the combination of the serous cystadenoma and ovarian fibroma is a very rare entity, it makes for an interesting case study. More commonly mucinous cystadenoma can be found in a combination of Brenner tumour, mature teratoma, sertoli-leydig cell tumours or even serous cystadenoma.[3] Histogenesis of serous tumours is by metaplasia from the surface epithelium or mesothelium which differentiates along tubal type of epithelium. Serous Cystadenomas are characteristically lined by properly oriented low columnar epithelium, which is sometimes ciliated. Microscopic papillae may be found. Tumour having prominent stromal tissues are called serous cystadenofibroma. In this case, the cystic areas were lined by flattened epithelium and the wall was composed of fibrocollagenous tissue, blood vessels and inflammatory cells. Although benign serous tumors are typically lined by an epithelium similar to that of the fallopian tube with ciliated and less frequently nonciliated secretory cells, cysts with flattened lining may be seen, which represent desquamation of the lining epithelium. [4] Cystic changes can occur in fibromas as a degenerative change, in which case, no epithelium can be seen in the cystic part. But in this case, the cystic part was lined by flattened epithelium, rather than columnar.

There is hardly any documentation of the combination of thereof in the textbooks. On rammaging through various pathology literatures, we came across two such cases; the first one by P.S. Jayalakshmy et al (2012), Dept of Pathology, Govt Medical College, Kottayam titled-'Ovarian Fibroma with Serous Cystadenoma-An unusual Combination: A Case Report' and the other by Copland and Coleman titled-'Bilateral concomitant fibroma and serous cystadenoma of ovary.'[5]

CONCLUSION:

In clinical settings, because of its capability to reach enormous size and exhibiting areas like solid and cystic, it is very obvious to misinterpret it as a malignant tumour. And due to its rarity it becomes more prone to be overdiagnosed as a malignancy. Therefore it is of vital importance to avoid misdiagnosing it as a cystic degeneration of a fibroma or as a serous cystadenofibroma but correctly diagnose it as a combination of fibroma and serous cystadenoma. The aim of this case report is to create awareness amongst Pathologists and Physicians.

Consent:

Written informed consent was procured from the patient.

Conflict of Interests:

No conflict of Interests.

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