International Journal of Clinical and Diagnostic Pathology

ISSN (P): 2617-7226
ISSN (E): 2617-7234
www.patholjournal.com
2021; 4(2): 127-128
Received: 04-02-2021
Accepted: 08-03-2021

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Cavernous haemangioma of ovary: A case report

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DOI: https://doi.org/10.33545/pathol.2021.v4.i2c.368

Abstract
Haemangioma have been reported in other organs but ovarian haemangioma is a rare tumour. Vascular malformation tumours in the female genital tract, especially those arising in the ovary are uncommon with low morbidity. Ovarian haemangioma featured as a benign rare tumour occurs among adults and children with the age ranging from infancy till octogenarian. Here we are reporting a case of ovarian haemangioma in a 26 years old female.

Keywords: Haemangioma, ovary, differential diagnosis

Introduction
Ovarian haemangioma, a vascular malformation originating in the female genital tract is a very rare condition often misled to a cancerous condition or diagnosed during autopsy [1]. These neoplasms occur in both adults and children with the age ranging from infancy to 81 years. Other cases are presented with an ovarian torsion or ascites [2]. Most ovarian haemangiomas are of the cavernous type and may present either as an isolated ovarian mass, usually discovered incidentally or in conjunction with diffuse abdominopelvic hemangiomatosis. Ovarian haemangiomas are "nonfunctional" neoplasms [3]. The aim of this article is to emphasize on a rare occurrence with its clinicopathological features and differential diagnoses in view of the recent literature [4].

Case report
A 26 year old female came with chief complaint of pain in abdomen since 15 days. The abdominal pain was dull in nature, localised to lower abdomen associated with bloating sensations and temporarily relieved by analgesic medication. Ultrasonography revealed a right ovarian mass measuring 15 x 14 cm. Open cystectomy was done and ovarian cyst was sent for histopathological examination. Grossly a large ovarian cyst of 15 cm diameter was received. External surface was greyish and congested. Cut surface [Fig.1] revealed multiple large cystic spaces filled with chocolate coloured haemorrhagic fluid.
Microscopically [Fig.2] shows large cavernous spaces filled with blood, separated by thin fibrous septa. IHC [Immunohistochemistry] revealed [Fig.3] endothelial cells positive for CD31 [A] and CD 34 [B].

Fig 1: Gross: Shows cut section of the ovarian cysts with multiple large cysts separated by fibrous septa.

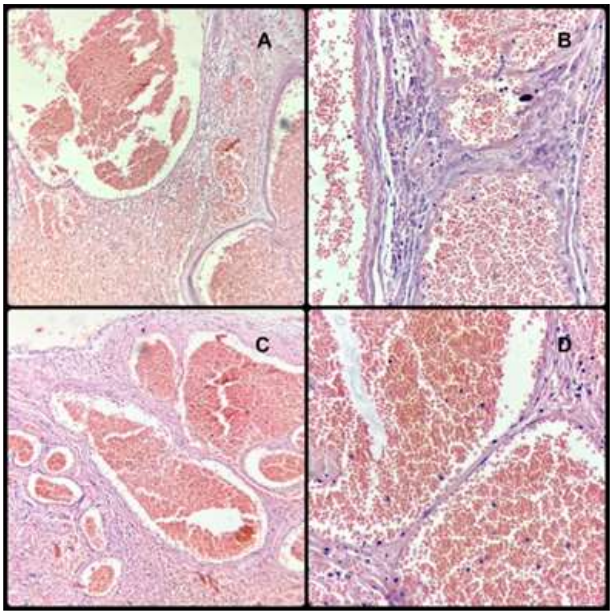

Fig 2: Microscopically: Shows multiple cavernous spaces separated by fibrous septa and lined by endothelial cells and filled with RBC's.
[H&E: A, C:10X; B, D: 40X]

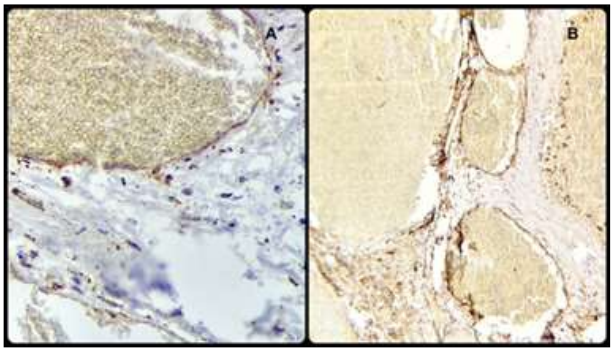

Fig 3: IHC: Shows CD31 [A] and CD 34 [B] positivity for endothelial cells. [IHC: 40X]

Discussion

Vascular tumours of female genital tract, especially those of ovary are very rare. The first was reported by Peyne in 1869. The aetiology of ovarian haemangiomas is unknown and controversial. These lesions have been considered either as hematomatous malformations or true neoplasm in which pregnancy, other hormonal effects, or infections have been implicated as factors enhancing the growth of haemangioma. Pre-existing stromal luteinization of the ovaries may stimulate the development of an ovarian haemangioma due to the growth stimulatory effects of oestrogens in vessels and expression of oestrogen receptors by haemangioma [2].

Haemangiomas are benign vascular tumours arising from failure in vascular formation, particularly in the canalising process, forming abnormal vascular channels. These are of two types: cavernous and capillary. The difference between these two types relate to the size of the blood vessels formed. Vascular tumours of the female genital tract, especially those of the ovary, are very rare. Although the exact number of ovarian haemangiomas is disputed, the number of well documented cases seems to be 50 or more but does not exceed 60. Large lesions tend to present clinically as adnexal mass, frequently associated with lower abdominal pain, nausea and vomiting due to torsion or abdominal distension because of the mass itself. Only a few of the ovarian haemangiomas have been reported to be associated with massive ascites and elevated serum CA-125 levels clinically mimicking an ovarian carcinoma [4].

Despite the rich vascularity of the ovary, the incidence of ovarian haemangioma is rare. Microscopically, most of the tumours are of cavernous or mixed cavernous and capillary type. The vascular channels are variable in size and are lined by a flat single layer of endothelial cells. The lumen may contain thrombosis and the intervening stroma may show hyalinisation, calcification and occasionally luteinization. Most tumours are unilateral, under 1.5 cm in diameter, in the hilus or medulla of the ovary and sharply separated from adjacent tissue, a feature distinguishing them from normal vascular channels in the ovary [5]. To define the lesion as a true haemangioma, a mass of vascular channels with minimal amounts of stroma should form a reasonably circumscribed lesion distinct from reminder of ovary. One of the controversial issues regarding the differential diagnosis involves distinguishing a monodermal teratoma having an angiomatous component from a pure haemangioma. Although vascular elements are not generally a component of ovarian teratomas, bilateral ovarian teratomas with a large hemangiomatosis component have been reported in which the lesions were distinguished from a pure haemangioma by the presence of as focus of respiratory epithelium [4]. The presence of RBC in haemangioma, excludes the possibility of lymphangioma. The unilateral position, cystic, soft, friable and spongy appearance with haemorrhage and necrosis leads toward the diagnosis of angiosarcoma. Histologically stumble on marked cytologic atypia, increased mitotic activity, pleomorphism, papillary endothelial tufting, necrosis haemorrhage [1].

Conclusion

Haemangiomas of the ovary are very rare neoplasms with a wide age range and incidental discovery during operation or autopsy. These neoplasms should be considered in the differential diagnosis of a haemorrhagic ovarian lesion. Surgical extirpation of the involved areas is his treatment of choice [4].

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