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A COMMON ENTITY AT AN UNCOMMON SITE- AN OVARIAN CAPILLARY HEMANGIOMA -A RARE CASE PRESENTATION

Pathology

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ABSTRACT

Ovarian Hemangiomas are rare benign vascular tumors of ovary. Approximately less than 60 cases reported in literature. Most of the times these are detected incidentally at the time of surgery but few cases may present with abdominal pain, swelling and ascites. We present a case of 29-year-old female, para 2 presented with dull abdominal pain. The Ultrasound examination revealed left ovarian cyst approximately measuring 4.8x 3.6cm. The patient underwent laparotomy and left saplingo-oophorectomy. Histopathological examination revealed follicular cyst and incidental capillary hemangioma of ovary. Immunohistochemistry revealed CD31 and CD34 (vascular endothelial markers) were strongly positive. The case is reported as it is rare in incidence.

KEYWORDS

Ovary, Capillary Hemangioma, Immuno histochemistry

INTRODUCTION

Ovarian hemangiomas are uncommon benign vascular tumors of ovary, most commonly hemangiomas of ovary are incidentally detected at the time of surgery or autopsy. few patients may develop abdominal pain, abdominal swelling, mass and ascites.

Rarity:

Approximately less than 60 cases are reported in literature till date. [1-3] The aim of this article is to describe clinicopathological features and compare it with the cases in literature

Case Report

A 29-year-old female (parity2) presented to gynecological OPD with complaining of lower abdominal pain for 6 months. The pain was dull aching, non-radiating type and was more towards left side. Her menstrual history and obstetric history were normal. The Ultrasound examination revealed left ovarian cyst approximately measuring 4.8x 3.6cm. Routine hematological and biochemical parameters were normal. The patient underwent laparotomy and left saplingo-oophorectomy, and then the specimen was sent for histopathology. The postoperative course was uneventful.

Macroscopically, the outer surface of the ovary was smooth measuring 5x4x2cm with attached tube measuring 5x1cm, on sectioning, the cut surface of the ovary was cystic filled with clear fluid and at periphery of cyst wall, solid dark brown area with spongy texture and honeycomb appearance noted measuring 3x2.5cm. (Figure1).

Figure-1 Cut section of ovary showing cyst with cyst wall with lesion (Arrow)showing dark brown with spongy texture

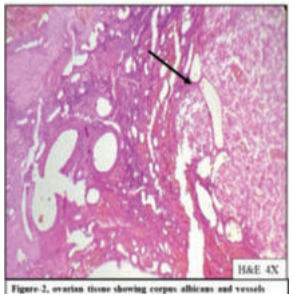
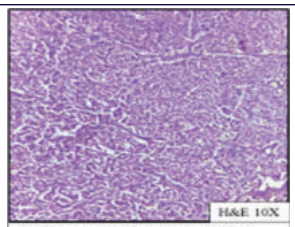


Figure-2, ovarian tissue showing corpus albicans and vessels with well circumscribed lesion(Arrow)

Microscopically most of the ovary was replaced by follicular cyst lined by flattened epithelium. In addition, a small vascular lesion was incidentally identified, composed of Multiple, capillaries sized in varying diameter, thin-walled vascular channels lined by single layer of endothelial cells separated by connective tissue septa. No atypia or necrosis seen. The sections from tube are unremarkable. (Figure2). Immuno-histochemistry analysis revealed CD31 and CD34 (vascular endothelial markers) were strongly positive for the cells lining the vascular channels confirming the vascular nature of the lesion. (Figure3&4). Finally, the diagnosis of primary ovarian capillary hemangioma was confirmed.



Multiple, capillary sized, thin-walled vascular channels

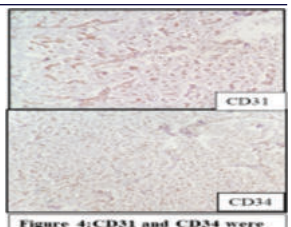


Figure 4:CD31 and CD34 were strongly positive for the cells lining the vascular channels

DISCUSSION

Although ovary has a rich vascular supply, The vascular tumours of ovary are very rare. Firstly, Ovarian hemangioma described in a 25-year-old female with bilateral ovarian hemangioma with co-existing with abdomino pelvic hemangiomatosis by Payne et al is 1869.

Haemangiomas mainly arise from failure in vascular formation, chiefly in the canalizing process, forming abnormal vascular channels. These are of two types: cavernous and capillary[2].The difference between these two types is based on the size of the blood vessels formed. Capillary type contains vessels of normal caliber, whereas the cavernous type consists of larger vascular channels. Cavernous type of Haemangioma is predominant in ovary[2]; where as in rest of the body, capillary hemangiomas are more common. In present case it is capillary haemangioma.

Macroscopically, ovarian hemangiomas are usually small and the size of the lesion has been reported from 5 mm to 24 cm in the greatest diameter. Grossly, Ovary is enlarged and smooth with glistening purplish color on outer surface. On cut surfaces it shows multiloculated cystic spaces filled with frank blood or serous fluid, giving spongy texture and honeycomb appearance. In present case the cyst was 3 cm in greatest diameter with cut section showing cystic spaces filled with clear fluid at center; and at periphery of the cyst wall has solid dark brown area with spongy texture and honeycomb appearance.

The main differential diagnosis for ovarian hemangioma are tightly packed blood vessels in medulla and proliferating vessels in hilar region but doesn't show vascular proliferations admixed with lymphatics and nerve fibers; and never form a well-defined mass. Other differential diagnoses for ovarian haemangioma are lymphangioma, angiosarcoma and teratoma with hemangiomatous component.

Clinico pathological findings of patients with Haemangioma of the ovary

Author	Age	Symptom	size	Type	Laterality
Payne et al13 1869	25	Vaginal bleeding	NA	NA	Bilateral

Mirilas et al12 1999	8yrs	Acute abdominal PAIN	NA	Cavernous	Right
Akbulut et al10 2008	65	Irregular vaginal bleeding	0.5cm	Capillary Hemangioma	Left
Zagnjeer.v et al9 2012	13	Pain abdomen	10cm	NA	Left
Mitra et al6 2013	22yrs	Pain abdomen	4.5cm	NA	Right
Sun suk kim et al8 2015	73	Lower abdomen discomfort	12cm	Cavernous	Right
Shirazi et al7 2015	55yrs	Left ovarian mass	2.5cm	Mixed-capillary+ cavernous	Left
Ziari k et al5 2016	38	Lower abdominal pain	3cm	Cavernous	left
Dahal M et al 11 2018	41yrs	Lower abdominal pain	4cm	Cavernous	Right
Kalaivanan et al 14 2019	52	Menorrhagia	0.1cm	Capillary	Right
Present case	29	Lower abdominal pain	3cm	capillary	Left

In most of the cases, hemangiomas are clinically small, asymptomatic, and are incidentally identified. Large lesions are associated with torsion of the ovary, acute abdomen, and/or rupture of the hemangioma leading on to hemoperitoneum. Our case was an incidental finding and produced mild symptoms like dull abdominal pain and associated with simple ovarian cyst.

CONCLUSION:

Hemangiomas of the ovary although rare tumors they sometimes associated with gynecologic cancer and hemangiomatosis, therefore surgical removal and careful examination of contralateral ovary and endometrium for a possible malignancy and examination of the abdominopelvic for ruling out hemangiomatosis are essential.

Conflict of interest: Nil

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