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Case Report

Capillary and Cavernous (Mixed) Type of Cervical Hemangioma with Uterine Adenomyosis in a 40-year-old Female

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Abstract

Hemangioma of the uterine cervix is an extremely rare benign vascular lesion and only a few sporadic cases have been reported. Cervical hemangioma is characterized by increase in the number of normal and abnormal veins. Histopathology examination is needed to diagnose hemangioma and to differentiate this disease with other pathological conditions. Hemangioma is a benign tumor which originates from endothelial cells of the blood vessels, which represent multipotent cellular elements, or from pericytes located on the outer side of the blood vessel wall. The majority of cervical hemangiomas have been reported in women of child bearing age.

Keywords: Capillary hemangioma, Cavernous hemangioma, Uterine adenomyosis

INTRODUCTION

Haemangiomas of the uterine cervix are very rare and usually harmless. It is a benign tumor that may cause gynaecological and obstetrical complications.[1] Caucasians have increased incidence of this lesion. Several classifications of haemangioma were devised according to vascular type (capillary, cavernous, venous), locations (cutaneous, intramuscular), the predominance of cells (epithelial cells, spindle), ages (juvenile, senile), and the nature of the disease (neoplasm, malformations, telangiectasia).[2] Owing to the small size and the asymptomatic nature, a majority of haemangiomas are incidental findings but they may present with abnormal vaginal bleeding. Affected gravidas often have uneventful pregnancy, labour and delivery.[3]

CASE HISTORY

A 40-year-old female, $P_3 L_3$, presented with complain of irregular menses and menorrhagia for last 13 days. Her last two gestations were delivered by LSCS surgical procedure. Her menstrual cycle had been irregular with heavy flow and menstrual cycle duration of 38 days (meno-metrorrhagia). She did not complain about post-coital bleeding.

Her hemoglobin was 10.9 gm %. Her serum hormonal study was normal without past history of hormonal pill ingestion. No history of vaginal infection or vaginal itching. Her per speculum examination showed healthy cervix and vagina. Discharge was absent and no spotting noted. Her per vaginal examination showed normal sized uterus in anteverted position. Bilateral fornixes were free/mobile and nontender. She had surgical history of tubal ligation done, 11 years back.

After consent, the patient underwent total laparoscopic hysterectomy with bilateral salpingectomy as she had completed her family cycle. On gross examination, the specimen of uterus with cervix and separately received bilateral fallopian tubes was received in

histopathology. Uterus with cervix, total measured 8.5 x 6.5 x 3.5 cms; weighed around 130 grams. On cut section, endocervical canal measured 2 cms and showed dark bluish appearance; endometrial canal measured 5.5 cms; endometrial thickness measured 0.3 cms; myometrial thickness measured 2 cms and showed turkish towel / trabeculated appearance. First fallopian tube measured 3.5 x 1 cms with one para-tubal cyst measuring 0.2 cms diameter. Second fallopian tube measured 3.5 x 1 cm with one para-tubal cyst measuring 0.2 cm in diameter (Figure-1).

On microscopic examination, cervix showed features of chronic polypoidal endocervicitis with marked congestion; squamous metaplasia with a nabothian cyst. Thinning of ectocervix (partially eroded) with proliferation of small and medium to large sized vessels noted in sub-epithelial cervical stroma (Figures 2 & 3). It was diagnosed as capillary and cavernous (mixed) type of cervical hemangioma.

Endometrium was of proliferative type, myometrium showed foci of adenomyosis. The bilateral fallopian tubes were unremarkable with bilateral para-tubal cysts.

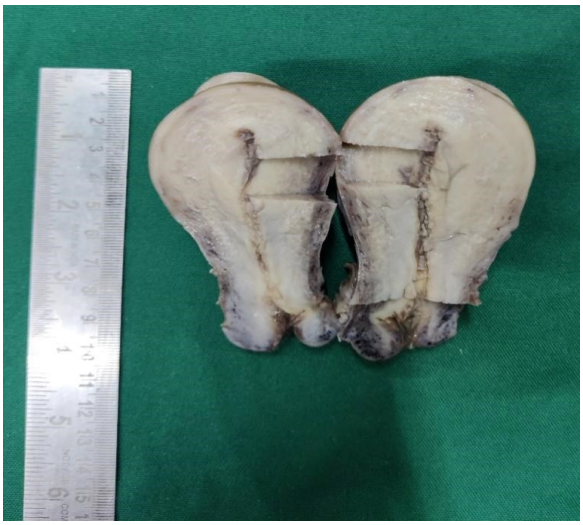

Figure-1: Gross image of cut section of uterus. Note the dark bluish appearance of cervix indicating vascular channels which blanched on applying external pressure.

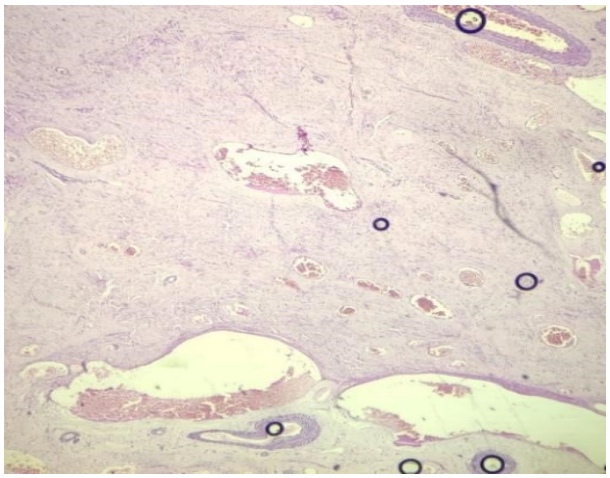

Figure-2: Microscopic examination of cervical stroma showing numerous congested small and medium to large sized, thin-walled blood vessels (H & E, X 40)

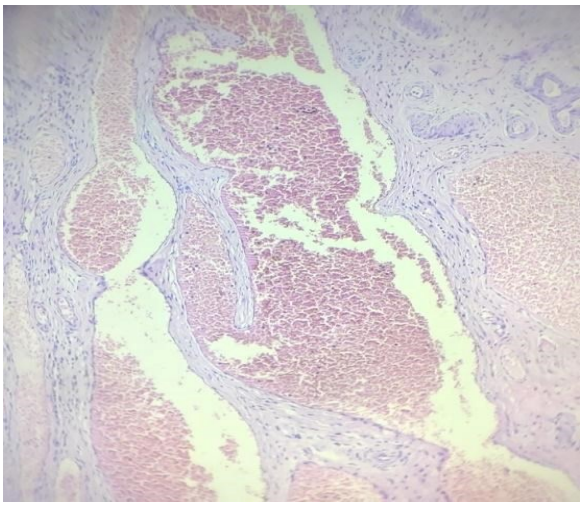

Figure-3: Microscopic examination showing cervical stroma with congested large-sized, thin-walled cavernous vasculature (H & E, X 400)

DISCUSSION

The incidence of haemangioma in different parts of the body is quite common. The occurrence of this vascular lesion in the female genital tract (FGT), particularly in the uterine cervix, is rare.[1-2]

Haemangioma, induced by pregnancy, increase during pregnancy and regress after delivery. Changes during pregnancy under hormonal influence can present risk of obstetrical complications. Cavernous haemangioma should be differentiated from reactive granulation tissue. The absence of concomitant inflammatory cells or fibrin in histology excludes the inflammatory nature of the lesion. Lack of atypia in the endothelial cells with the absence of mitotic figures and haemorrhagic necrosis excludes angiosarcoma.[3]

The clinical manifestation of haemangioma in the uterine cervix present in broad spectrum, ranging from asymptomatic to several complains including abnormal vaginal bleeding, abdominal pain, antepartum bleeding, post-coital bleeding, and foreign body sensation in the vaginal introitus. Obstetrical complications include premature rupture of membrane, foetal death in-utero, post-partum bleeding and disseminated intravascular coagulation (DIC).

The gynaecological complications are inter-menstrual spotting, abnormal uterine bleeding, post-menopausal bleeding, post-coitus bleeding, infertility, and dyspareunia.[2] Our patient had meno-metrorrhagia.

The conventional haemangiomas, including those of FGT, are divided after their morphological characteristics into: capillary, cavernous and venous. Capillary haemangiomas composed of numerous intertwining capillary sized vessels lined by the endothelium. When in lesions, the thin-walled vascular channels are considerably enlarged, then term to be coined is cavernous haemangioma. They differ from capillary haemangioma in that it is less well circumscribed, is larger and is usually deeper in submucosal tissues, and because asymptomatic and do not cause any deformation of the cervix.[2,3]

Haemangioma is also classified into congenital and acquired. Congenital haemangioma is known to be associated with hereditary diseases. There is a higher incidence of some vascular tumours caused by hereditary or genetic disorders. In some haemangiomas, their genetic basis cannot be determined.

The cause of the development of acquired vascular tumours is still unclear. Some authors believe that haemangiomas of FGT occur under the influence of hormonal contraceptives or due to pregnancy/ previous surgery.[4] Our case has previous two LSCS surgeries. Haemangiomas can also be mistakenly diagnosed as squamous cell carcinoma of the cervix, particularly when this condition presents as an ulcerative lesion.

On topographic assessment of the cervix, port-wine or brownish blue discoloration may be present, which blanches on pressure. These lesions may be small and circumscribed or diffuse, and may also extend onto the vagina and vulva. Haemangiomas can also be detected incidentally during routine histopathological examination of the organ removed surgically, in the absence of a gross lesion. Transvaginal colour Doppler and magnetic resonance imaging can be used for clinical diagnosis and therapeutic assessment of vascular tumours of the female genital tract.[5]

Rare cases of the coexistence of cervical haemangioma with pregnancy are also reported. Association with oral contraceptive pills and pregnancy indicates the role of the hormone in the development of cervical haemangiomas. Due to variations in hormonal levels in pregnancy, it may aggravate the symptoms of haemangiomas. Oestrogen has an important role in the development of haemangioma, by the presence of oestrogen receptors in endothelial cells of hemangioma.[6,7]

The majority of cervical cavernous haemangiomas have been reported in women of childbearing age. Besides, although most lesions are symptomatic (mostly bleeding), diagnosis is often unlikely. They may cause abnormal vaginal bleeding in the form of meno-metrorrhagia and post-coital spotting.[6,7]

Surgical excision remains the treatment of choice in most of the cases and alternatively conservative treatment can also be considered, such as cryotherapy, LEEP, Sclerosing agents and carbon dioxide laser in preserving fertility in the young females. Though, normal delivery is possible, caesarean is recommended many times in gestational cervical haemangioma. Now, hysterectomy has been limited to cases in which conservative management or surgical excision has failed. Transcatheter arterial embolization can also be considered after delivery in rapidly growing vaginal hemangioma.[7-9]

CONCLUSION

Cervical haemangioma is generally asymptomatic but can cause vaginal bleeding, and hence should be included in the differential diagnosis of patients with

abnormal vaginal bleeding. History of previous pelvic surgeries must be asked. Also hormonal supplementation must be enquired to the patient. Conservative procedures like LEEP can be undertaken to avoid unnecessary hysterectomy in cervical haemangioma, especially in younger women.

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