

Cavernous Hemangioma of Uterine Cervix in Pregnancy Mimicking Cervical Fibroid

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Introduction

The incidence of hemangioma in different parts of the body is quite common. The occurrence of this vascular lesion in the female genital tract, particularly in the uterine cervix, is rare [1]. Owing to their small size and the asymptomatic nature, a majority of hemangiomas are incidental findings, but they may present with abnormal vaginal bleeding [2]. Affected gravidas often have uneventful pregnancy, labor, and delivery [3–5]. In asymptomatic women of child-bearing age, management is local ablation, preserving the uterus [4]. Bleeding, while usually responsive to conservative ablation, may require hysterectomy [6]. In this article, we describe an asymptomatic hemangioma of cervix, which was clinically diagnosed as cervical fibroid in a term pregnant lady, which was managed by local ablation.

Case Report

A 27-year-old nullipara, at 34 weeks of gestation, complained of something coming out of her introitus. Except for her term pregnancy, her past history was normal. On general examination, the patient was found to be pale, weak, hypotensive. Per speculum revealed, a large well-circumscribed mass of around 8 cm in diameter coming from the posterior lip of uterine cervix bulging out through the introitus. Clinically, it was diagnosed to be a cervical fibroid. Ultrasound (USG) of the abdomen revealed a single intrauterine live fetus of 34 ± 2 weeks of gestation in cephalic position. USG of the pelvis showed a large hypoechoic mass of size 7 cm in the vagina attached to the cervix. Hemogram revealed hemoglobin to be 10 g/DL, neutrophilic leucocytosis, platelet count, and coagulation profile within normal limit. The mass was enucleated and was sent for histopathological examination.

On gross examination, the mass was found to be a well-circumscribed grayish brown measuring $6 \times 7 \times 8$ cm. Cut-section revealed soft homogenous grayish brown surface which was interspersed with few white fibrous strands (Fig. 1). On histopathological examination, there was metaplasia of squamous lining of uterine cervix (Fig. 1) with the presence of irregularly dilated blood vessels lined by flattened epithelium (Fig. 2) separated by stroma containing a few inflammatory cells (Fig. 3). The final diagnosis made was cavernous hemangioma of uterine cervix. The patient was followed up, who later on delivered a term baby through cesarean section.

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Fig. 1 A well-circumscribed grayish brown gross, interspersed with few white fibrous strands

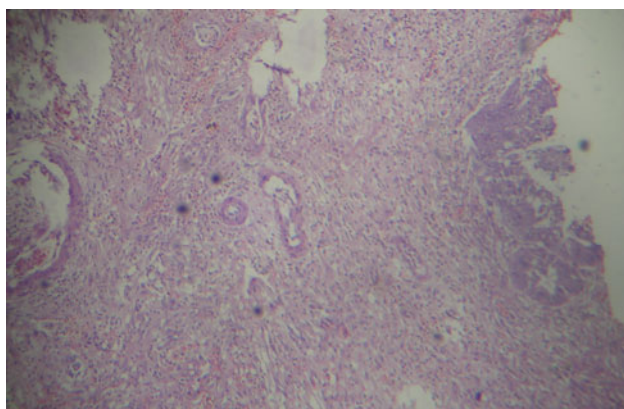


Fig. 2 Metaplasia of the cervical squamous epithelium with underlying dilated blood vessels separated by connective tissue stroma ($\times 100$, H&E)

Discussion

Venous malformations usually occur on the head, neck, extremities, and trunk. Hemangioma is a ubiquitous benign vascular tumor that rarely involves the female genital tract [1]. To date, fewer than 50 hemangioma incidences have been reported, as arising in the uterine cervix [1]. Although it can occur in any age group between 9 and 70 years, most of these vascular lesions occur in the second and third decades of life [7]. Most cervical hemangiomas are asymptomatic, and incidental out of 41 reported cases, one-third had abnormal bleeding, mainly menorrhagia or post-coital spotting [3, 4].

The possible origin of this tumor of uterine cervix is hypothesized as due to the embryonic sequestration of mesodermal rests [1] and acquired forms, associated with previous pelvic surgery, endometrial curettage, or ingestion of diethylstilbestrol [8]. Even if the association of the cervical hemangioma with chronic cervicitis has been reported, this lesion must be differentiated from increased

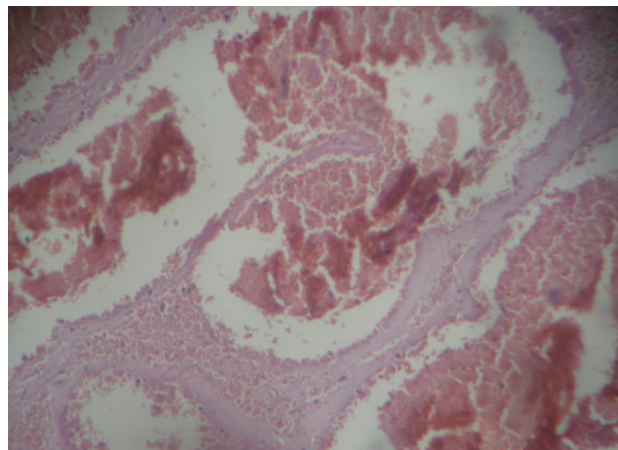


Fig. 3 Large blood-filled vascular spaces separated by stroma ($\times 400$, H&E)

blood vessels in granulation tissue resulting from chronic infection [9].

Hemangiomas, induced by pregnancy, increase during pregnancy and regress after delivery. Changes during pregnancy under hormonal influence can present risk of obstetrical complications [1].

High serum estradiol doubles the growth rate of vascular endothelium in vitro [10]. The risk of hemorrhage may thus increase, particularly when the growth is associated with infection, ulceration, or trauma. However, in our case, the patient complained of something coming out the introitus with a dragging sensation, which was surgically ablated.

Cavernous hemangioma should be differentiated from reactive granulation tissue. The absence of concomitant inflammatory cells or fibrin in histology excludes the inflammatory nature of the lesion. No atypia was observed in the endothelial cells with the absence of mitotic figures which excluded angiosarcoma. Immunohistochemistry stain proved positive for CD31 and CD34 along with focal positivity for factor-VIII-related antigen [11].

All the hemangiomas reported by Ahern and Allen were benign [6]. This supports a conservative treatment with a close follow up [6]. Conservative measures used are local excision, conization, cautery, radiation, suture ligation, cryotherapy, systemic and local steroid therapies, laser excision, and photocoagulation [12]. Although Powel et al. [12] found hysterectomy to be the primary mode of treatment in 38 % of cases till 1991, in the last decade, hysterectomy has been limited to cases where the conservative management failed. Three reports describe cases managed expectantly during first pregnancy [4, 5]. Bleeding did not occur even though the lesion grew during the gestation. Cesarean was done in one case as the cervix was obstructed by the lesion [5]. In our case, the primigravida was managed conservatively by local ablation and the patient

responded well to it. Later she delivered by cesarean section.

Clinicians should keep in mind that a cervical lesion associated during pregnancy may not be cervical fibroid; rather, the differential diagnosis should be broadened to include cavernous hemangioma. Except for any complication like active bleeding, where the conservative management may not be helpful, the entity can be managed with local conservative treatment.

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