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Dysplastic cervical squamous intraepithelial lesion of the uterine cervix associated with cavernous hemangioma: an uncommon association

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Abstract

Hemangioma of the cervix though mostly benign, can mimic other neoplastic conditions of the cervix, such as cervical cancer. They pose a diagnosis challenge due to their rarity, and are often found incidentally while investigating other conditions. This is a case report of such a finding, with a patient who presented with post menopausal vaginal bleeding, abnormal pap smear and colposcopy with biopsy revealed a cervical hemangioma and high grade squamous intra epithelial lesion.

Key words: post-menopausal bleeding, cervical squamous intraepithelial lesion, cavernous hemangioma, uterine cervix.

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Introduction

Benign vascular tumors are relatively common in the body. Their presence in the female genital tract, however, is relatively uncommon. They have been documented in the ovary, fallopian tube, uterus and vulva. Their occurrence in the cervix is even more uncommon.[1]

Hemangiomas occurring in the cervix are unique both in terms of clinical presentation as well as the complications they present with. They are mostly asymptomatic, though they can sometimes present with abnormal vaginal bleeding. They could also present with diagnostic challenges.[2]

The association of hemangioma of the cervix and dysplastic epithelial change in the same patient is even more rare.[3]

Our index case presented with post-menopausal bleeding, for which she underwent cervical colposcopy. An incidental polypoid growth was seen during the colposcopy procedure.

Our case being reported is unique in terms of the rare association of hemangioma and uterine dysplasia in the same patient. The knowledge of this association will both guide pathologists and gynecologists.

Case Report

The patient is a 52-year-old P10 +5 A9 3-years post-menopausal woman who presented to the gynaecology clinic with a history of post-menopausal bleeding of six days duration. The bleeding was sudden in onset and unprovoked with no associated blood clots. There was no preceding history of abnormal vaginal discharge, post coital bleeding, shortness of breath, or dizziness. No history of weight loss or urinary symptoms. She attained coitarche at the age of 13 and married in a polygamous setting to a civil servant. She had no history of contraceptive use or cigarette smoking.

Examination revealed a middle-aged woman. She is not pale, anicteric with no pedal oedema. Pelvic examination revealed normal female external genitalia.

Examination of the cervix revealed a single small polypoid growth on the external cervical os. There was no contact bleeding. Colposcopy revealed a type 2 transformation zone with abnormal vascular markings at 10:00 o'clock and 6:00 o'clock positions with aceto-whitening and iodine negative areas at the same positions. Tissue biopsy was taken at the abnormal areas while the cervical polyp was excised, and all the samples sent for histopathologic examination. Sample for pap smear was also taken. Cytological examination of the cervical smears revealed features of atypical squamous cells of undetermined significance, high grade lesion cannot be excluded (ASC-H).

Histologic examination of the cervical specimen revealed dysplasia of the ectocervical epithelium with atypical cells and loss of polarity in the upper two thirds of the epithelium (Figure 1.) The cervical polyp revealed presence of several variably sized blood vessels containing red blood cells (Figure 2). A final histologic diagnosis of high grade squamous intraepithelial lesion with co-existing cavernous hemangioma was made. The patient was counselled for Large Loop Excision of Transformation Zone (LLETZ) of the cervix. However, the patient was lost to follow-up.

Discussion

Hemangiomas are benign vascular tumors. They could be congenial in origin; in which there is embryonic sequestration of mesodermal nests or associated with conditions like ingestion of oral contraceptive pills, diethylstilbestrol, pelvic surgery or

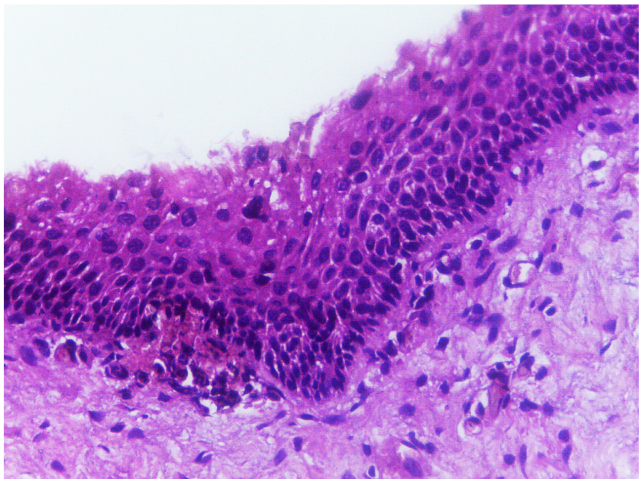

Figure 1. Photomicrograph of cervical epithelium showing dysplastic changes in form of loss of polarity and pleomorphism of the keratinocytes. (H & E X200).

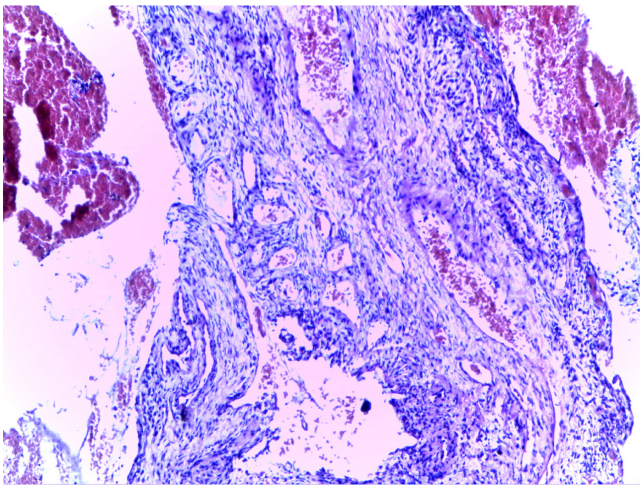

Figure 2. Photomicrograph showing multiple blood vessels of varying sizes having thick walls and some of them containing red blood cells (H & E X100).

endometrial curettage.[4,5] The origin of hemangiomas has been a topic of debate. The vast majority of hemangiomas do occur during infancy. This supports the hypothesis of an embryologic origin in which stem cells within the connective tissue are the site of origin. Frequent association of hemangiomas with a number of congenital syndromes, like Kasabach-Merrit and Mafucci syndromes further lends credence to this hypothesis. Hemangiomas also do occur sporadically. Exposure to estrogen has been associated with acquired hemangiomas. Estrogen receptors have been demonstrated in the lining endothelial cells of the vascular channels.

Our patient does not have history of exposure to any of the risk factors. Therefore, it is possible she has a developmental risk factor which is just manifesting in her adult life.

The age group affected is very broad. However, most patients are within second to third decade.[1,6] Our patient's age is also consistent with the broad age group documented.

Most cervical hemangiomas are very small, and therefore are only discovered as incidental findings. However, a number of them have been reported to present with abnormal vaginal bleeding like our index case, which prompted the patient to seek medical attention.[1,4] However, given the size of the nodule and the fact that it is separate from the dysplastic epithelium, the vaginal bleeding is most likely from the cervical hemangioma rather than the dysplastic cervical epithelium.

Cervical hemangiomas are very rare. This is in contrast to their occurrence in other parts of the body where they are a common occurrence. The differential diagnosis of nodular lesions occurring in the cervix include endometrial polyp and cervical leiomyoma. Due to its relative rarity, clinicians do not commonly think of it as a differential diagnosis when evaluating patients with abnormal vaginal bleeding.

In postmenopausal women presenting with bleeding, the differential diagnosis mostly considered is bleeding from a dysplastic cervical epithelial lesion or endometrial pathology.

Conclusions

Hemangiomas, even though common in other parts of the body, are uncommon occurrences in the uterine cervix. Knowledge of this entity will help clinicians managing patients with abnormal vaginal bleeding. In addition, the simultaneous occurrence of hemangioma and cervical dysplastic epithelium, like in our index case, is very rare, which makes it important for clinicians to be aware of this association.

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