Case Report

Atypical polypoid adenomyoma with extensive morular metaplasia - Case report

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ABSTRACT

Atypical polypoid adenomyoma (APA) is a rare and benign endometrial polypoid lesion. APA was found in a 38-year-old woman who presented with excessive vaginal bleeding. Histopathological examination of the polyp was consistent with "APA" with extensive morular metaplasia. Immunohistochemical marker CD_{10} was done to establish the diagnosis of morular metaplasia. Morular metaplasia is dissimilar to squamous metaplasia. It is sometimes misreported as adenosquamous carcinoma. This case illustrates the significance of morular metaplasia as a differential diagnosis.

Key words: *Atypical polypoid adenomyoma, CD_{10}, Morular metaplasia*

Atypical polypoid adenomyoma (APA) is a rare and benign endometrial polypoid lesion. It was first reported by Mazur in 1981 as a tumor that mainly consisted of proliferated endometrial glands and smooth muscle cells [1]. CD_{10} marker highlights the stromal response to endometrial carcinoma, whereas it is negative in stroma of APA. CD_{10} also highlights the areas of morular metaplasia distinguishing it from squamous metaplasia which is negative [2]. This condition is associated with recurrences, endometrial hyperplasia, and endometrial carcinoma. As morular metaplasia is different from squamous metaplasia, this case is presented to show the importance of morular metaplasia as a differential diagnosis.

CASE REPORT

A 38-year-old female, P_1L_1, presented with irregular and excessive bleeding per vagina for 1 year. She was a known diabetic on treatment for the past 5 years and obese with body mass index of 39. On bimanual examination, the uterus was retroverted and bulky. Ultrasonography study of pelvis showed uterus 92×50×49 mm; endometrial echo 6.2 mm; hyperechoic area of 10×9 mm suggestive of an endometrial polyp (Fig. 1); posterior wall fundal fibroid of 26×24 mm; anterior wall fundal fibroid of 21×18 mm; and bilateral polycystic ovaries. The patient underwent dilatation and curettage and the endometrial curettings were sent for the histopathological examination.

Histopathology of endometrial curettings was suggestive of "APA" with extensive morular metaplasia (Fig. 2). Immunohistochemistry for CD_{10} marker was positive in all the morules (Fig. 3). Endometrium was in the proliferative phase with simple hyperplasia. No stromal pre-decidualization was noted. Spiral arterioles were hypertrophic. Subsequently, the patient underwent total abdominal hysterectomy. Histopathology report showed simple hyperplasia of endometrium without atypia, proliferative phase, residual rare morules, adenomyosis uteri and myohypertrophy, no dysplasia or carcinoma cervix, normal fallopian tubes, and bilateral polycystic ovaries. Histology reflected estrogenic influence. Follow-up following surgery was uneventful.

DISCUSSION

Polyps are a common cause of abnormal uterine bleeding in pre- and post-menopausal women. APA is uncommon [1-3]. It usually occurs in young women. Mean age is 40 years (range 21–73 years). It affects the lower uterine segment commonly. Some cases have more prominent fibrous appearance. Hence, it is also called APA [1,3,4]. APA has been identified during investigations for infertility [5]. It has been reported in Turner's syndrome [6] and hyperprolactinemia [7]. Polyp may persist or recur but does not metastasize. Patients have increased risk for subsequent carcinoma [5].

Grossly, it resembles endometrial polyp, often sessile with a broad base. It is a single, well-circumscribed, polypoid mass, seen often in lower uterine segment. It is usually confined to endometrium with a pushing margin. Microscopically, it is a biphasic lesion consisting of a myofibroblastic stromal component and an endometrial glandular proliferation, typically with squamous metaplasia [8]. Squamous morules are usually present and may have central necrosis. Mitotic activity is low (< 3/10 HPF). There is no desmoplasia. There may be a coexistence of endometrial intraepithelial neoplasm/complex atypical hyperplasia [8] or well-differentiated endometrioid adenocarcinoma. More conservative management with complete removal of the tumor and close follow-up may be considered for women desiring to preserve their fertility [9].

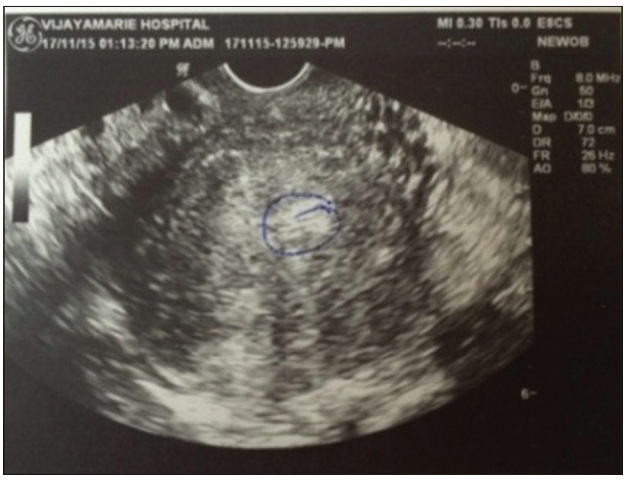

Figure 1: Ultrasound examination of pelvis demonstrating endometrial polyp

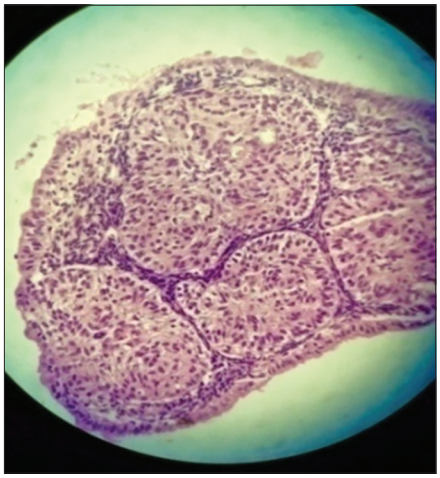

Figure 2: HPE-atypical polypoid adenomyoma with extensive morular metaplasia (H and E stain)

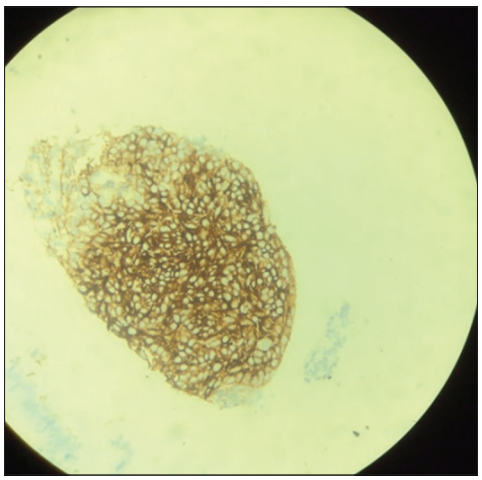

Figure 3: Immunohistochemistry positive for CD10 marker

The major differential diagnostic problem presented by APA when it affects young women is the exclusion of well-differentiated endometrial carcinoma invading the myometrium. This distinction is of great importance from the standpoint of treatment because reproductive conservation is feasible in patients with APA. Immunohistochemical marker CD_{10} helps in differentiating APA from endometrial cancer [10,11]. CD_{10} staining represents a useful marker of morules in endometrioid neoplasms of female genital tract [2]. CD_{10} marker highlights the stromal response to endometrial carcinoma, whereas it is negative in stroma of APA. CD_{10} is known to be a marker of endometrial stromal cells and stromal cells immediately surrounding the neoplastic glands invading the myometrium [2,12]. The differential diagnosis is squamous metaplasia, adenosquamous carcinoma, and atypical endometrial hyperplasia.

CONCLUSION

We report a case of APA with extensive morular metaplasia in a premenopausal woman as it is a rare condition and can be mistaken for adenoacanthoma. CD_{10} staining identifies morular metaplasia which is distinct from squamous metaplasia. CD_{10} marker helps in differentiating APA from endometrial cancer. Unfamiliarity with the lesion can lead to misdiagnosis as adenoacanthoma.

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