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Case Report

Silent malignancy in plain sight: a rare case of dual carcinomatous and sarcomatous transformation in a giant cervical polyp

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ABSTRACT

Cervical polyps are common benign gynecological lesions. Although malignant transformation is exceedingly rare (occurring in <1.7% of cases), it presents a distinct clinical challenge because preoperative screening including Pap cytology and pelvic ultrasonography often yields normal findings. A 52-year-old perimenopausal woman (P2L2) presented with irregular menstrual cycles and intermenstrual spotting. Speculum examination revealed a large, pedunculated cervical polyp measuring approximately 5 cm. Both preoperative cervical cytology (NILM) and transvaginal ultrasound were reassuring. The patient underwent polypectomy, dilation and curettage (D&C), and endocervical curettage. Histopathological examination revealed sheets of highly dysplastic cells infiltrating vascular stroma with atypical mitosis. Immunohistochemistry (IHC) demonstrated carcinoma foci along with atypical stromal cell proliferation favoring a low-grade endometrial stromal sarcoma (ESS) with focal high-grade sarcomatous change. Stalk margins showed no lymphovascular invasion. Following multidisciplinary team (MDT) review and staging pelvic MRI/chest CECT showing no distant disease or residual invasion, total laparoscopic hysterectomy with bilateral salpingo-oophorectomy was performed. Final pathology showed no residual malignancy, and the patient remains disease-free under regular surveillance. Giant cervical polyps, even when presenting with benign physical characteristics and normal cytology/imaging, can harbor complex focal malignancies with mixed carcinomatous and sarcomatous components. Routine histopathological and immunohistochemical evaluation of all excised cervical lesions is essential for timely diagnosis and optimal oncologic management.

Keywords: Cervical polyp, Malignant transformation, Endometrial stromal sarcoma, Giant cervical polyp, Histopathology, Case report

INTRODUCTION

Cervical polyps are common benign lesions encountered in approximately 2–5% of women attending outpatient gynaecology clinics.¹ The overall risk of dysplasia or malignancy is low but clinically relevant. In a large retrospective series of 2,246 cervical polyps, dysplasia was reported in about 0.5% and malignancy in 0.1%. Another review has noted malignant transformation, including carcinoma, in up to 1.7% of cases, with a higher incidence among postmenopausal women.² Many cervical polyps are

asymptomatic; when symptomatic, they typically present with inter menstrual bleeding, postcoital bleeding, or vaginal discharge.³

Because of the small but significant malignant potential, there is broad consensus that all excised cervical polyps should undergo histopathological examination. A histologic series of 369 polyps demonstrated clinically significant findings (dysplasia, atypia, or malignancy) in 3.7%, reinforcing this recommendation.⁴ Controversy exists regarding whether routine endometrial evaluation

(D&C) is required for asymptomatic polyps, although many clinicians adopt a conservative approach unless risk factors are present.

The pathogenesis of malignant change in cervical polyps is incompletely understood; chronic inflammation, hormonal influences, and reactive epithelial hyperplasia have been proposed. When malignancy is confined to the polyp, prognosis is generally favourable with timely diagnosis and appropriate management. We present a rare case of a large (5 cm) cervical polyp with carcinomatous and sarcomatous transformation in a woman with normal cytology and imaging, highlighting the importance of routine histopathological evaluation.

CASE REPORT

A 52-year-old P2L2 perimenopausal woman, previously laparoscopically sterilised, presented with irregular menstrual cycles and two episodes of intermenstrual spotting. She reported no pelvic pain, dyspareunia, weight loss, fever, or systemic symptoms. Her medical history included hypertension and borderline diabetes controlled with diet. Speculum examination revealed a large, pedunculated, smooth, reddish cervical polyp measuring approximately 5 cm protruding through the external os. Bimanual examination showed a normal-sized uterus, unremarkable adnexa, and no parametrial thickening.



Figure 1: Per speculum examination showing a large, pedunculated cervical polyp.

Investigations

Pap smear: Negative for Intraepithelial Lesion or Malignancy (NILM).

Transvaginal ultrasound: Normal uterus and adnexa; an echogenic mass within the cervical canal consistent with a polyp; no suspicious uterine features

Routine haematology and biochemistry: Within normal limits She underwent D&C, endocervical curettage, and

polypectomy using electrocautery at the stalk. The specimen was submitted in toto for histopathology.

Histopathology

The sub epithelium showed sheets of highly dysplastic cells having vesicular nuclei and moderate eosinophilic cytoplasm, infiltrating in highly vascular stroma, atypical mitosis noted features suggestive of poorly differentiated carcinoma.

IHC The polyp exhibited endocervical mucosal lining with foci suggestive of carcinomatous transformation, including glandular atypia, increased nuclear cytoplasmic ratio, and mitotic activity. Immunohistochemistry showed an endocervical polyp with atypical stromal cell proliferation, with findings favouring low-grade endometrial stromal sarcoma (ESS) with focal high-grade sarcomatous change. No lymph vascular invasion was identified in the stalk.

Further evaluation of multidisciplinary review recommended advanced imaging. Pelvic MRI showed no cervical stromal invasion, parametrial involvement, or lymphadenopathy. Chest CECT was normal. Given the histological diagnosis and patient characteristics, a total laparoscopic hysterectomy with bilateral oophorectomy was performed. Final histopathology of the hysterectomy specimen showed no residual malignant tissue.



Figure 2: Cervix on per speculum examination post polypectomy.

Follow-up

Postoperative recovery was uneventful. She is under regular surveillance.

DISCUSSION

Size and lesion presentation (Giant cervical polyp)

The case highlights a 5 cm, pedunculated endocervical polyp protruding through the external os in a 52-year-old perimenopausal woman. Cervical polyps typically

measure between 0.5 cm and 2 cm; polyps exceeding 4 cm are categorised as "giant cervical polyps". Though large polyps routinely present as benign, hyperplastic growths, this case demonstrates that size alone does not rule out aggressive malignant or mesenchymal changes.^{1,5}

Limitations of screening and imaging diagnostics

A central finding of this case is the total discordance between preoperative investigations and final histopathology. Cytology (NILM Pap smear) and imaging (Transvaginal Ultrasound showing a benign-appearing echogenic endocervical mass) were completely negative for malignancy. Because neoplastic changes can be focal or localized within the core tissue of the polyp, surface cytology and standard sonography frequently fail to identify internal architectural transformation.²

Dual neoplastic transformation (Carcinomatous and sarcomatous elements)

Histopathology and immunohistochemistry (IHC) confirmed poorly differentiated carcinoma in conjunction with stromal proliferation favoring low-grade endometrial stromal sarcoma (ESS) with focal high-grade changes. While carcinomatous transformation within an endocervical polyp is exceptionally rare, the presence of a stromal sarcoma component within a cervical polyp is an even rarer clinical entity.^{2,6,7}

Surgical resolution and prognosis

Given the histopathological diagnosis, the patient underwent a total laparoscopic hysterectomy with bilateral salpingo-oophorectomy (TLH+BSO).

The final hysterectomy specimen showed no residual malignancy or lymphovascular invasion, confirming that early excision of the localized polyp was curative and carried a favorable overall prognosis.³

CONCLUSION

Cervical polyps are typically benign, but malignant transformation, although rare, remains a clinically significant possibility⁴. This case of a large cervical polyp with carcinomatous and stromal sarcomatous change despite normal cytology and imaging highlights the critical importance of routine histopathological evaluation. Clinicians should maintain vigilance, particularly for large

or symptomatic polyps, and ensure appropriate excision, pathological assessment, and further oncologic management when indicated.

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