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Case Report

Rare occurrence of adenocarcinoma in an endocervical polyp: diagnostic and clinical challenges

Sumedha Gupta[1], Saloni Chadha[1]*, Dheer Singh Kalwaniya[2], Bhawuk Dhir[3]

[1]Department of Obstetrics and Gynaecology, VMMC and Safdarjung Hospital, New Delhi, India
[2]Department of Surgery, VMMC and Safdarjung Hospital, New Delhi, India
[3]Department of Dermatology, Dermadex Clinic, East patel nagar, New Delhi, India

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***Correspondence:**
Dr. Saloni Chadha,
E-mail: Chadha.saloni@gmail.com

ABSTRACT

Endocervical polyps, typically benign, are frequently discovered during routine gynecological examinations, although they may present with abnormal uterine bleeding or increased vaginal discharge. Malignant transformation within these polyps is rare, with an estimated incidence ranging from 0.0% to 1.7%. We present a case of a 38-year-old premenopausal woman who exhibited secondary infertility and abnormal uterine bleeding, eventually diagnosed with invasive adenocarcinoma within an endocervical polyp. Diagnostic evaluations including histopathology and imaging confirmed deep infiltrating endometriosis and uterine adenomyosis. Following multidisciplinary consultation, the patient underwent a cone biopsy, which revealed chronic cervicitis. Ultimately, a hysterectomy with bilateral salpingo-oophorectomy was performed. The final histopathology revealed leiomyoma and endometriosis, with no malignancy beyond the polyp. This case highlights the diagnostic challenges associated with malignancies within cervical polyps and underscores the importance of excising and thoroughly examining such polyps, even when cytological findings are negative.

Keywords: Endocervical polyp, Adenocarcinoma, Cervical polyp malignancy, Cone biopsy

INTRODUCTION

Cervical polyps, which are generally benign hyperplastic growths arising from the columnar epithelium of the endocervical canal, are observed in approximately 2-5% of women. Typically asymptomatic, they are frequently detected incidentally during routine cervical cytological screening. However, in some cases, they may present with clinical manifestations such as abnormal uterine bleeding, including intermenstrual, postcoital, and postmenopausal bleeding, as well as increased vaginal discharge.[1]

The diagnosis of carcinoma developing within a cervical polyp necessitates the exclusion of malignancy within the polyp's base and the surrounding cervical stroma.[2] Limited data in the existing literature indicate that the incidence of malignant transformation in cervical polyps ranges from 0.0% to 1.7%.[3] Here we report a rare case of a 38 year old lady with adenocarcinoma arising in the endocervical polyp.

CASE REPORT

A 38-year-old premenopausal lady, gravida 1, para 1, presented to the gynecology outpatient department with secondary infertility and abnormal uterine bleeding. Her clinical history included painful, heavy menses and dyspareunia for last 5 years. Previous diagnostic evaluations included a contrast-enhanced magnetic resonance imaging (CEMRI) conducted four years ago, which indicated the presence of deep infiltrating endometriosis along with bilateral ovarian cysts, each measuring 4 cm in diameter. She had undergone laparoscopic myomectomy in 2016 and bilateral

endometrioma drainage four years back. The patient was conscious, well-oriented, and exhibited pallor during the physical examination. Abdominal examination showed no palpable mass or hepatosplenomegaly. The local and vaginal examination revealed a 3×3 cm smooth polyp protruding from the external OS, it's stalk could not be traced till the base and a bulky uterus along with bilateral adnexal cystic masses approximately 3×4 cm was felt, while rectovaginal septal thickness, with rectal mucosa were noted to be free. The patient underwent routine investigations, including tumor markers (CA125, CEA, AFP, LDH, BHCG), which were within normal limits except complete blood count revealed moderate anaemia. Polypectomy was done and histopathology identified an endocervical mucosal polyp with invasive adenocarcinoma (Figure 1). Subsequent CEMRI confirmed uterine adenomyosis, bilateral ovarian endometrioma, and extensive deep infiltrating endometriosis with normal cervix (Figure 2).

Colposcopy and Pap smear results were normal. The case was discussed in multidisciplinary tumor board meeting and consensus decision for a cone biopsy was made to evaluate the endocervical vs endometrial origin of adenocarcinoma. The cone biopsy indicated chronic cervicitis. Given the additional uterine pathology, the patient opted for a hysterectomy with bilateral salpingo-oophorectomy, preceded by a preoperative 2-unit blood transfusion. Per-operative findings included a uterus of 12-week size, bilateral ovarian endometrioma measuring 3×4 cm, obliterated POD with bilateral ovarian endometriosis, a grossly normal cervix, and dense adhesions involving the rectosigmoid, bilateral ureters, and ovaries (Figure 3).

The patient tolerated the procedure well and experienced a good postoperative recovery. Final histopathology revealed chronic cervicitis, a proliferative endometrium with leiomyoma and endometriosis of both ovaries. Now the patient is under surveillance and regular follow up.

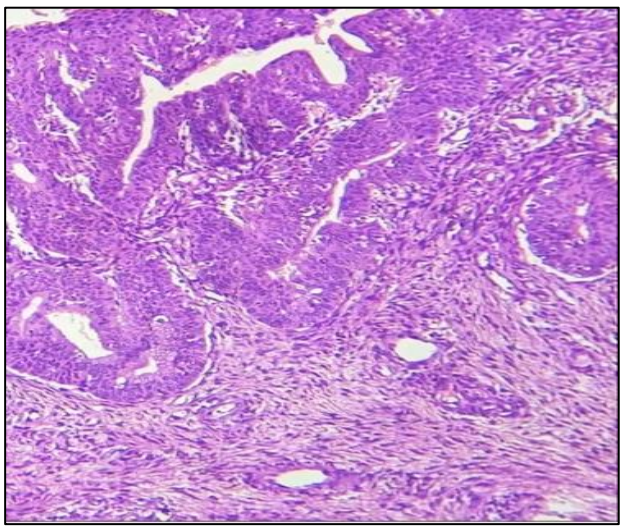

Figure 1: H and E stain (40×) showing endocervical mucosal polyp with invasive adenocarcinoma.

Figure 2: CEMRI showing uterine adenomyosis with bilateral ovarian and deep pelvic endometriosis.

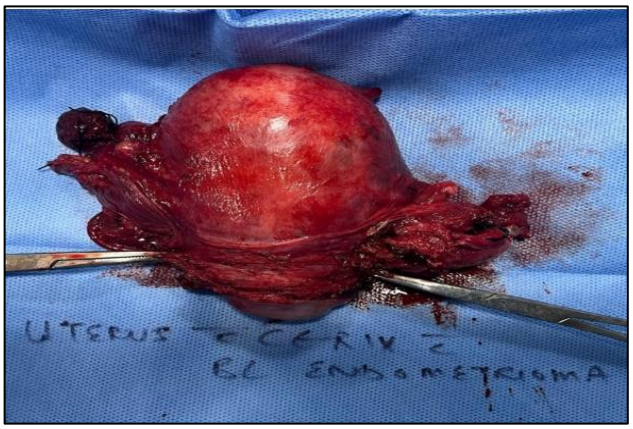

Figure 3: Gross hysterectomy specimen showing bulky uterus.

DISCUSSION

Endocervical polyps are commonly seen across various age groups but tend to be more frequent in patients over the age of 40. Although their exact cause remains uncertain, chronic inflammation is often suggested as a potential factor. These polyps may also be associated with pregnancy or the influence of exogenous progestins, particularly when microglandular hyperplasia is present. Diagnosis typically occurs during routine gynecological examinations or colposcopies, where the polyps may be seen protruding through the cervical OS. Occasionally, cervical Pap smears may display atypical cells resulting from reactive surface epithelial changes.

Grossly, endocervical polyps are usually solitary and measure less than 1 cm. On frozen section examination, their microscopic features resemble those seen in permanent sections, with the primary differential diagnosis being adenosarcoma. Unlike adenosarcomas, however, endocervical polyps do not exhibit periglandular stromal condensation or papillary intraglandular projections, and significant stromal or epithelial atypia is absent.[4]

Histologically, endocervical polyps are characterized by a fibrovascular core containing blood vessels of varying sizes, often including thick-walled arteries. The stroma may display variable cellularity and mixed chronic inflammation, while the surface epithelium is of the endocervical glandular type and may show squamous metaplasia, erosion, or reactive/reparative changes. The glands within the polyp may be cystic or show benign microglandular hyperplasia, and mitotic activity may be observed, particularly in cases with pronounced inflammation or florid microglandular hyperplasia. Additionally, epidermal metaplasia with skin appendage structures, multinucleated stromal cells, decidual changes, and occasionally heterologous elements such as fat, cartilage, or bone may be present.

Differential diagnoses include adenosarcoma, which features a leaf-like glandular architecture with intraglandular papillary projections, prominent periglandular stromal condensation, and stromal cell atypia with mitotic figures. Other conditions to consider are endometrial polyps, polypoid adenomyoma, and condyloma.

There is a diagnostic challenge to identify malignant cervical polyp by either cytology or routine screening methods for cervical cancer. In previous cases the possibility of false-negative cytological results in cervical polyps with squamous cell carcinoma has been noted, showing negative cytology despite the presence of malignancy. This is potentially due to inadequate cell sampling aimed at minimizing cervical bleeding during the procedure. Prompt removal and histopathological evaluation of all cervical polyps are recommended, even in the presence of negative cytological findings, given the symptoms such as vaginal bleeding, leukorrhea, and the potential risk of malignant transformation. Additionally, if carcinoma is identified within a polyp, further conization is advised to confirm that the malignancy is confined to the polyp.[1] Similarly, we did a cone biopsy to rule out extension of malignancy to adjacent tissue other than the polyp.

It is a standard clinical approach to excise cervical polyps upon detection, largely due to concerns about their potential for malignant transformation. Additional indications for removal include symptomatology, such as abnormal bleeding, and patient preference. While the incidence of malignancy within these polyps, particularly endocervical polyps, remains low, this prompts debate on whether all polyps, especially in asymptomatic women, should undergo excision and histopathological evaluation.[5] However, polypectomy is not without risks, including possible infection, hemorrhage, and complications related to anesthesia.[1]

CONCLUSION

Regular gynecological check-ups should include a comprehensive evaluation of cervical polyps to ensure early detection and proper management. Following polyp removal, histopathological examination is crucial to determine the presence of any malignant cells. In complex cases, a multidisciplinary approach involving various medical specialties is essential for optimal care. Furthermore, patients diagnosed with cervical polyps should receive thorough counselling regarding the potential risks and benefits of polypectomy, enabling informed decision-making about their treatment options. This study emphasizes the importance of vigilant diagnostic approaches and thorough evaluation of cervical polyps to detect rare malignancies, ensuring timely management and optimal patient outcomes.

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