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IS ROUTINE HISTOPATHOLOGICAL ANALYSIS OF CERVICAL POLYPS NECESSARY?

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ABSTRACT

Background: Cervical polyps are the foremost common benign neoplasms of the cervix with the range of prevalence reported as 1.5-10%. Although most cervical polyps are benign, 0.2-1.7% of them are related to malignancy. **Aim:** To assess the prevalence of malignancy and dysplasia in cervical polyps and to judge whether cervical polyps got to be removed routinely. **Patients and Methods:** We retrospectively reviewed 541 cases of cervical polyps that were diagnosed at the pathology department of Mongi Slim hospital over a nine-year period (January 2007 - October 2016). Patients' age, menopausal status and pathological findings were recorded. **Results:** The age of our patients ranged between 23 and 86 years aged (mean = 47 years). Forty-seven women with cervical polyps presented with vaginal bleeding (8.68%) while the remaining were either asymptomatic or the rationale for presentation wasn't documented. Among 541 cervical polyps, only two cases (0.37%) of malignancy were encountered which were endometrioid adenocarcinoma and cervical adenosarcoma. Two leiomyomas, one adenomyoma and four condylomas were also diagnosed. There have been also dysplastic (0.74%), metaplastic (3.69%) and inflammatory (26%) changes. Accompanying endometrial pathologies were endometrial polyp (0.92%) (n=5) and endometrial hyperplasia without atypia (0.18%) (n=1). **Conclusions:** Our data indicate that the prevalence of malignancy (0.37%) and dysplasia (0.74%) is comparatively uncommon on cervical polyps. Routine removal of cervical polyps, although not mandatory, seems clinically prudent because pathological evaluation is required to verify the diagnosis and to rule out other possibilities.

KEYWORDS: Cervical polyp, cervical polypectomy, pathology.

INTRODUCTION

Cervical polyps are the commonest cervical lesions, affecting up to 10% of women.[1,2] They arise from the endocervical canal or, less frequently, from the ectocervix.[3] A common question is whether a cervical polyp needs to be removed since low prevalence of malignancy reassures conservative management and the observation of cervical polyps. The purpose of this study was to assess the prevalence of dysplasia and malignancy in a series of 541 consecutive cervical polypectomies and to compare our findings with literature.

PATIENTS AND METHODS

The histopathological records of all patients with cervical polyps who underwent polypectomy between January 2007 and October 2016 in the department of Gynaecology were reviewed retrospectively. Totally, 541 cervical polyps were identified and reviewed. Details concerning the patients' age and the pathological findings were recorded and analyzed. All specimens were surgically obtained. We fixed the tissues in 10% phosphate buffered formaldehyde, we embedded them in paraffin and we prepared sections for routine light microscopy after staining with hematoxylin and eosin. We maintained patient's confidentiality.

RESULTS

• Patient characteristics

We identified and reviewed 541 cervical polyps. The patient ages ranged from 23 to 86 years (mean = 47 years). Of these 541 women, 410 (76%) were premenopausal and 131 (24%) were postmenopausal.

• Presenting symptoms

Forty-seven women with cervical polyps presented with vaginal bleeding (8.68%) while the remaining were either asymptomatic or the reason for presentation was not documented.

• Pathologic findings

The incidence of reactive histological findings in benign polyps is summarized in table 1. Among 541 cervical polyps, only two cases of malignancy were encountered which were endometrioid adenocarcinoma and cervical adenosarcoma. There were four patients (0.74%) with dysplastic changes (low-grade squamous intraepithelial lesion), 20 patients (3.69%) with metaplastic changes

and 141 patients (26%) with inflammatory changes on cervical polyp. Decidual change was noted in five cases (0.92%), nabothian cyst in nine cases (1.66%), tunnel cluster in 3 cases (0.55%) and microglandular hyperplasia in four cases (0.74%). Two leiomyomas, one adenomyoma and four condylomas were also diagnosed. Pap test results were available in 15 patients with polyps. All of them had abnormal cytological findings (10 ASCUS, one case of ASC-H (Atypical squamous cells: cannot exclude high-grade squamous intraepithelial lesion), three LSIL (low-grade squamous intraepithelial lesion) and 1 HSIL (high-grade squamous intraepithelial lesion), yet benign histological features on corresponding polyps. Accompanying endometrial pathologies were endometrial polyp (0.92%) (n=5) and endometrial hyperplasia without atypia (0.18%) (n=1).

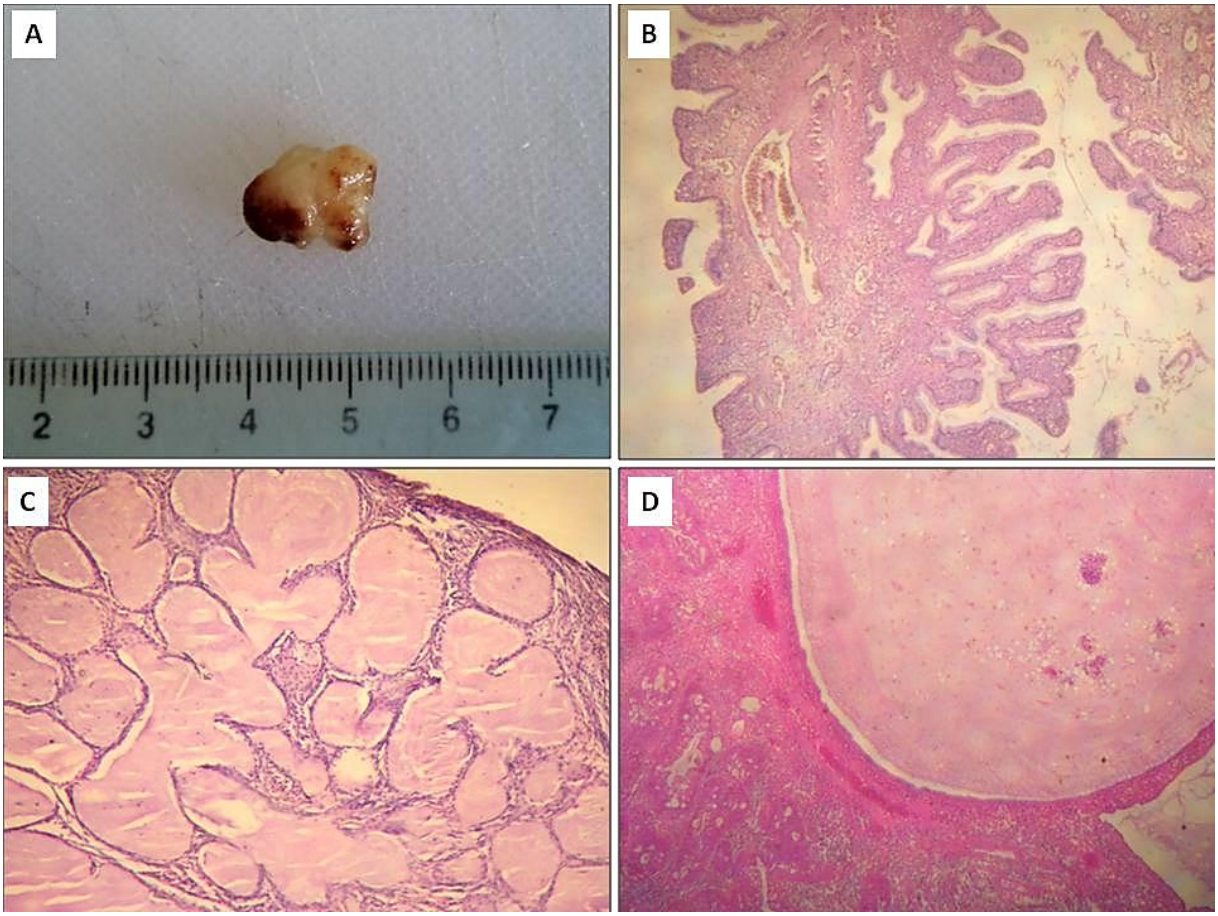

Figure 1 A: Macroscopic findings of an endocervical polyp.
Figure 1 B: Polypoid growth with a surface epithelium made up of columnar epithelial cells. The stalk is made up of connective tissue with rich vascularization, (Haematoxylin and eosin, magnification × 100).
Figure 1 C: Tunnel cluster. The lesion shows a well-circumscribed lobular aggregate of closely packed rounded cystic glands lined by bland endocervical type epithelium containing mucin, (Haematoxylin and eosin, magnification × 200).
Figure 1 D: Nabothian cyst. Mucus filled cysts lined by a single layer of columnar endocervical cells, (Haematoxylin and eosin, magnification × 200).

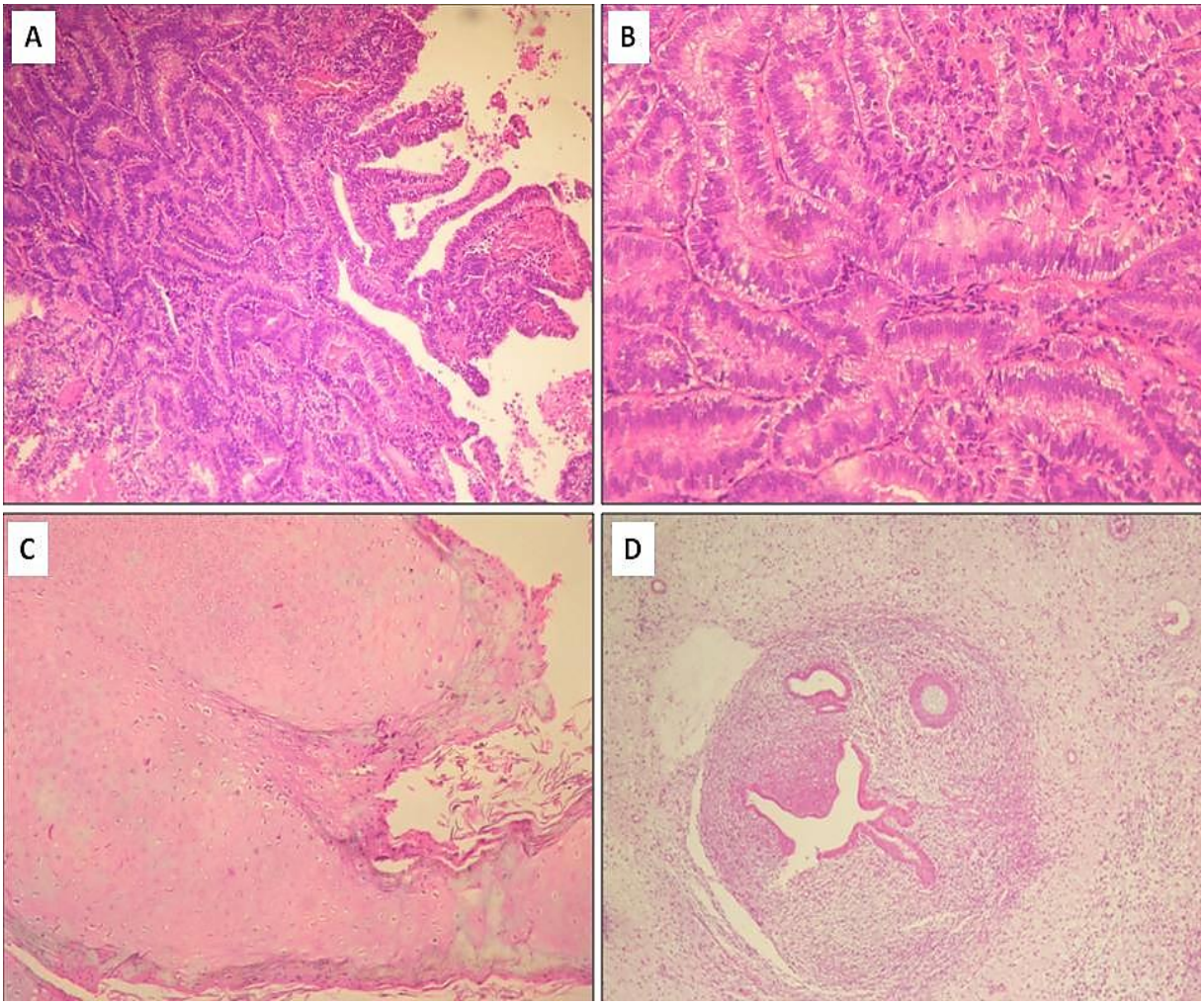

Figure 2 A: Well-differentiated endometrioid adenocarcinoma of the endocervix. (Haematoxylin and eosin, magnification × 200).
Figure 2 B: Well-differentiated Endometrioid adenocarcinoma of the endocervix. Neoplastic glands lined by moderately atypical tumour cells. (Haematoxylin and eosin, magnification × 200).
Figure 2 C: Condyloma of the uterine cervix. The squamous epithelium covering the lesion, exhibits acanthosis and koilocytosis. (Haematoxylin and eosin, magnification × 200).
Figure 2 D: Histological findings of cervical adenosarcoma. A biphasic tumour with an admixture of benign Müllerian glands and low-grade malignant stroma. Note the periglandular cuffing by cellular stroma, (Haematoxylin and eosin, magnification × 200).

Table 1: Incidence of reactive histological findings in benign cervical polyps.

Benign and reactive findings	Number of cases	%
Inflammation	141	26
Squamous metaplasia	20	3,69
Endometriosis	4	0,74
Decidual change	5	0,92
Granulation tissue/ulceration	8	1,47%
Microglandular hyperplasia	4	0,74
Nabothian cyst	9	1,66
Tunnel cluster	3	0,55

Table 2: Incidental premalignant and malignant findings in polypectomy specimens.

Authors	Year	Number of cases	Frequency of malignancy	Incidental premalignant and malignant findings
Younis M et al.,[9]	2010	1126	0%	High-grade squamous intraepithelial lesion (n=2).
Tirlapur SA et al.,[10]	2010	294	0%	None of the polyps showed features of atypia, dysplasia or malignancy.
Buyukbayrak EE et al.,[11]	2011	4063	0,07%	Dysplastic changes (n=15), Metastasis from endometrium (n=3).
Levy RA et al.,[12]	2016	369	1,08%	CIN I (n=6), CIN II/III (n=2), adenosarcoma (n=2), endometrioid endometrial adenocarcinoma (n=1) and in situ adenocarcinoma (n=1).
Our series	2016	541	0,37%	Endometrioid adenocarcinoma (n=1), cervical adenosarcoma (n=1), condyloma (n=4), dysplastic changes (n=4).

* CIN : Cervical intraepithelial neoplasia.

DISCUSSION

Cervical polyps are relatively common lesions. They are thought to be the result of reactive changes from long-standing chronic inflammation. Other suggested factors include multiparity and foreign bodies.[4] They are soft, spherical, glistening red lesions and bleed easily when touched. Cervical polyps most commonly present in perimenopausal and multiparous women between the ages of 30 and 50 years.[5] In our series, the patient ages ranged from 23 to 86 years (mean = 47 years). Of these 541 women, 131 (24%) were postmenopausal. Many cervical polyps are not accompanied by bleeding or other symptoms and hence are incidentally found at the time of routine gynecologic examination.[3,7,8] In our series, forty-seven women with cervical polyps presented with vaginal bleeding (8.68%), while the remaining were either asymptomatic or the reason for presentation was not documented. Cervical polyps have been shown to have a significant association with endometrial hyperplasia and endometrial polyps suggesting that high levels of estrogen may be an etiologic factor.[6] In our series, accompanying endometrial pathologies were endometrial polyp (n=5) (0.92%) and endometrial hyperplasia without atypia (n=1) (0.18%).

Although most cervical polyps are benign, recent data have shown the prevalence of malignancy associated with cervical polyps to be approximately 0.1%.[2,3] Our results indicate that the prevalence of malignancy (0.37%) and dysplasia (0.74%) is relatively uncommon on cervical polyps. Table 2 summarizes the incidence of premalignant and malignant lesions that were fortuitously discovered on polypectomy specimens in different series reported in literature.[9-12] There is still a widely held view that all cervical polyps should be removed and subjected to histological examination to identify an unsuspected malignancy, and that further investigation (ultrasound scan and/or hysteroscopy) should be performed to identify endometrial polyps or other pathology.[2] Many clinicians believe that routine removal of polyps is reasonable because they are easy to remove, unlikely to resolve, may become symptomatic and it is not known if they are likely to progress to malignancy.[2] Other investigators recommended simple polypectomy and Pipelle endometrial sampling in women presenting with asymptomatic cervical polyps, while symptomatic women should undergo combined hysteroscopy and endometrial sampling.[13] On the other hand, there is evidence from the literature to justify not removing asymptomatic cervical polyps or performing hysteroscopy for women < 45 years of age unless there is persistent irregular bleeding not responding to hormonal treatment.[14] Some authors claimed that removing cervical polyps from patients with abnormal cervical cytology or only symptomatic patients and limiting histological examination to these polyps, would result in significant cost savings.[10]

In summary, our results demonstrate that dysplastic or malignant conditions can sometimes be identified in clinically innocuous cervical polyps, thus necessitating their removal for evaluation. Furthermore, removal and evaluation of all cervical polyps may help explain abnormal Pap test findings, which in turn, may ease consternation in patients and gynaecologists. Therefore, we stress the importance of pathologic evaluation of all cervical polyps, regardless of symptoms or abnormal Pap tests.

Competing interests

The authors declare no conflict of interest.

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