ZKTB

ORIGINAL RESEARCH

Clinicopathological Evaluations of Cervical Polyps

Serviks Poliplerinin Klinikopatolojik Değerlendirmesi

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ABSTRACT

Objective: *Management of uterine cervical polyps is a common debate in clinical practice. Ethical concerns complicate decision making as well as designing randomized or prospective studies. Thus, clinical evidence can be gathered from retrospective studies. Possibility of malignant transformation is also a concern in assessment and management of pre- and post-menopausal patients. In this study we aimed to identify if a difference exist in between these groups, and discuss our results with the previously reported.*

Material and Method: *We evaluated results of 245 patients retrospectively. Totally 270 polyps were detected. Pathological results of polyps were compared according to menopausal status and symptoms. Fisher's Exact Test and Fisher-Freeman-Halton Test were used in statistical analysis. Statistical significance is considered where $p<0.05$ and $p<0.01$.*

Results: *There was no invasive disease. Cervical intraepithelial neoplasia type 1 was seen in one postmenopausal patient. Polyps were asymptomatic in 39.6% (n=97) of the cases and coincide with abnormal uterine bleeding (AUB) in 53.9% (n=132), and missed abortus in 6.5% (n=16). Patients with polyps significantly tend to have complaint of abnormal uterine bleeding compared to other symptoms.*

Conclusion: *Routine cervical polypectomy is not necessary. Cytology and utilization of colposcopy should be considered prior to polypectomy, as well as assessment of clinical and menopausal status.*

Keywords: *Menopause; Uterine Cervix; Polyp*

ÖZET

Amaç: *Klinik pratikte servikal poliplerin nasıl yönetileceği yaygın bir tartışma konusudur. Randomize kontrollü prospektif çalışmalar etik olarak doğru bulunmadığından bu konudaki çalışmalar retrospektif olmaktadır. Malin transformasyon potansiyeli pre ve postmenapozal hastalarda endişe oluşturmaktadır. Bu çalışmada, servikal polip görülen hastalarda, semptom ve menopoz durumuna göre polipektomi piyeslerinin patoloji sonuçlarının karşılaştırılması amaçlanmıştır.*

Gereç ve Yöntem: *Servikal polip tanısı konulan 245 hasta retrospektif olarak incelendi. Total olarak 270 polip incelendi. Patoloji sonuçları menopoz durumu ve semptomlara göre Fisher's Exact Test ve Fisher-Freeman-Halton Test ile karşılaştırıldı. İstatistiksel anlamlılık $p<0.05$ ve $p<0.01$ olarak kabul edildi.*

Bulgular: *Olgularda invazif hastalık görülmedi. Sadece postmenapozal bir hastada servikal intraepitelyal neoplazi (CIN 1) görüldü. Poliplerin %39,6'sı (n=97) asemptomatik hastalarda, %53,9'u (n=132) anormal uterin kanaması olan hastalarda ve % 6,5'i (n=16) missed abortus ile başvuran hastalarda görüldü. Anormal uterin kanaması olan olgularda servikal polip belirgin olarak fazla idi.*

Sonuç: *Rutin servikal polipektomi gereksizdir. Kolposkopi kullanımı ve sitoloji klinik ve menopozal durumun değerlendirilmesiyle beraber polipektomiden önce dikkate alınmalıdır.*

Anahtar Kelimeler: *Uterin serviks; Menopoz; Polip*

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INTRODUCTION

Uterine cervical polyps (UCP) are seen about 2-5% of all women. They are more frequent over 20 years of age, in parous women, and mostly (60-70%) asymptomatic (1-6). It is reasonable to remove UCP, because the procedure is simple and they very rarely disappear. Additionally it is unknown whether a malignant transformation would occur (3). Some researchers also think that regardless of menopausal status or symptoms, UCP's should be removed and pathological examination is necessary (7). We conducted this retrospective research in order to assess clinical presentation of patients, UCP types, and whether pathology results differ between pre- and post-menopausal patients.

MATERIAL AND METHOD

Between 2010 and 2014, in Diyarbakır Maternity Hospital, 245 patients with UCP being either asymptomatic or coinciding with various symptoms were evaluated. More than one year of cessation of periods were defined as menopause. Age, menopausal status, presenting symptoms, number and size of UCP(s), and pathological examination results were evaluated. Mean and standard deviations (SD) were given. In statistical analysis, Fisher's Exact Test was used to compare pathologic results between patients with pre- and post-menopause, and Fisher-Freeman-Halton Test was used to compare pathologic results between different indications of polypectomy. Local ethics committee approval was not considered because of the retrospective design.

RESULTS

Evaluated patients were between 23 and 86 years of age with a mean ± SD of 46.29 ± 9.88. There were single UCP in 89.8% (n=220), and two UCPs in 10.2% (n=25) of the cases. The size of the total 270 UCPs detected in 245 cases ranged from 0.1-7cm with a mean ± SD of 1.14 ± 0.87. UCPs were asymptomatic in 39.6% (n=97), coincide with abnormal uterine bleeding (AUB) in 53.9% (n=132), and missed abortus in 6.5% (n=16) of the cases. Pre- and post-menopausal patients were classified according to pathological examination results (Table 1). Results were mostly benign UCPs with no case of malignancy. Sole cervical intraepithelial neoplasia type 1 (CIN-1) diagnosis was made in a post-menopausal patient. The frequency of pathology reports defining UCP types in two patient groups were the same. In other words, a statistical significance regarding pathology results was not present between pre- and post-menopausal patients (Table 2).

Table 1. Pathological results of polyp.

Pathology	Pre-menopausal	Post-menopausal	Total
Polyp	(96.0%)	(95.8%)	235 (96.0%)
Leiomyoma	3 (1.7%)		3 (1.2%)
Endocervical cyst	1(0.6%)		1 (0.4%)
Ulcerated granulation tissue	1(0.6%)	1 (1.4%)	2 (0.8%)
Pyogenic granuloma	1(0.6%)	1 (1.4%)	2 (0.8%)
Trichoepithelioma	1(0.6%)		1 (0.4%)
CIN 1		1 (1.4%)	1 (0.4%)
Total	100%	100%	100%

Table 2. Comparison of pathological results according to menopausal status.

	Menopaus (-) (n=173)	Menopaus (+) (n=72)	p
	n (%)	n (%)	
CIN 1	0 (%0)	1 (%1.4)	0.294
Endocervical cyst	1 (%0.6)	0 (%0)	1.000
Myoma	3 (%1.7)	0 (%0)	0.558
Pyogenic granuloma	1 (%0.6)	1 (%1.4)	1.000
Polyp	166 (%96)	69 (%95.8)	1.000
Trichoepithelioma	1 (%0.6)	0 (%0)	1.000
Ulcerated granulation tissue	1 (%0.6)	1 (%1.4)	0.502

Fisher's Exact Test. ***CIN 1:*** *Cervical intraepithelial neoplasia*

Patients with UCP significantly tend to have complaint of abnormal uterine bleeding compared to other clinical presentation or complaints ($p<0.01$, Table 3).

DISCUSSION

To summarize our results, no malignancy was reported in the examined 245 cases. Only critical lesion was a CIN-1 in a post-menopausal patient. According to menopausal status, no differences in frequency of pathological diagnoses were encountered between pre- and post-menopausal patients. Regarding the clinical presentation of patients with UCP, abnormal uterine bleeding is significantly the most frequent.

Table 3. Comparison of pathological results according to clinical presentation.

	CLINICAL PRESENTATION			p
	NO (n=97)	AUB (n=132)	MISSED (n=16)	
	n (%)	n (%)	n (%)	
CIN 1	1 (%1)	0 (%0)	0 (%0)	0.461
Endocervical cyst	1 (%1)	0 (%0)	0 (%0)	0.461
Myoma	2 (%2,1)	0 (%0)	1 (%6,3)	0.042*
Pyogenic granuloma	2 (%2.1)	0 (%0)	0 (%0)	0.282
Polyp	88 (%90.7)	132 (%100)	15 (%93.8)	0.001**
Trichoepithelioma	1 (%1)	0 (%0)	0 (%0)	0.461
Ulcerated granulation tissue	2 (%2.1)	0 (%0)	0 (%0)	0.282

Fisher-Freeman-Halton Test, *p<0.05 **p<0.01
CIN 1 : Cervical intraepithelial neoplasia
AUB : Abnormal uterine bleeding

As it is unethical to randomize a group of patients whether to be performed a polypectomy, it is hard to design a randomized prospective study. So, retrospective analyses mainly guide for the necessity of polypectomy and define risk factors for malignant transformation in patients with UCPs. Detecting malignancy in UCP is a rare event. Fauth et al. analyzed 4340 cervical and 62 vaginal UCPs, and reported benign and malign UCP percentages as 95% and 1.4%, respectively. They also reported the frequencies of premalignant lesions of the cervix (1.1%), simple endometrial hyperplasia (0.1%), endometiroid adenocarcinoma (n=4), unclassified adenocarcinoma (n=2), squamous carcinoma (n=1), adenosquamous carcinoma (n=1), adenocarcinoma in situ (n=1), and invasive carcinoma with CIN-2/3 (0.2%).

Authors concluded that malignant UCP were more frequent in patients over 60 (8). In a study from Mayo Clinic, 4328 polyps were evaluated in 3656 patients. Variants of benign UCP (squamous metaplasia, microglandular hyperplasia, inflammatory UCP, erosive UCP, reactive follicular UCP, leiomyoma, Arias-Stella reaction, adenomyoma, prolapsed endometrial polyp, and submucosal endometriosis) in 628 (14.5%) patients, dysplastic UCP in 9 (0.2%) patients, and reactive atypical UCP in 34 (0.8%) patients were defined. B cell lymphoma diagnosis was established via polypectomy of a patient with atypical reactive UCP. Authors also further analyzed the dysplastic or atypical UCP for patient age, race, gravidity, parity, body mass index, menopausal status, smear results prior to polypectomy, and UCP size, and concluded that dysplastic UCP have lower mean age and are related to abnormalities in the latest smear results prior to polypectomy (9). In a retrospective report of 1366 patients, routine polypectomy was suggested to be unnecessary since no malignant transformations were observed. CIN-2 was detected in one patient with UCP and abnormal uterine bleeding, and colposcopy findings suggesting HPV were detected in one patient undergone polypectomy (3).

In another study evaluating UCP size and clinical features in 381 cases, only %0.7 (n=3) of the patients had malignant UCP (10). In our study, although there were small number of patients, CIN-1 could only be detect in %1.4 (n=1) of the cases and is consistent with the previous reports.

In a study it is advocated that post-menopausal period is relatively safe and dysplastic UCPs tend to be more common between the ages of 30 and 50, and risk of malignancy increases in UCPs detected in pre-menopausal period; however, this could not be supported with by a statistical significance (11). Additionally in another study, only two (0.2%) out of 1126 investigated UCP have high grade CIN lesions, one of which belongs to a pre-menopausal patient with AUB, and the other belongs to patient with post-menopausal bleeding (12). In this current study, menopausal status was not shown to alter frequency of pathologic diagnoses, and the only pre-malignant lesion was in the post-menopausal group. In the present study, patients with UCP admitted significantly with abnormal uterine bleeding ($p<0.01$). This finding may support the presence of possible relationship with hormonal status.

In a study from Turkey, 91 cases with UCP were classified into two groups according to menopausal status. Endometrial biopsy was only performed for those having abnormal uterine bleeding after polypectomy and/or for patients with irregular/thick endometrium. For pre-menopausal group, findings were proliferative endometrium in 65%, secretory endometrium in 9% of the cases. Simple hyperplasia without atypia in two cases, and complex hyperplasia without atypia in one case were reported in both pre- and post-menopausal groups (13).

However, pathology reports of endometrial biopsies were not available for these patients. Causative mechanisms in emergence of UCP are still unclear. Local chronic inflammation and hormonal changes are held responsible in some researches (3, 14, 15). Evidences of strong relations between high estrogen levels, endometrial hyperplasia, and endometrial polyp growth, brought estrogens forward as a possible etiologic factor (16, 17). In order to detect possible endometrial pathologies, some authors also argue for making endometrial biopsy together with polypectomy. In relation to this, a study evaluating biopsy samples from 4063 UCP cases, only three cases were reported to have metastases of endometrial origin. Endometrial biopsies were reported to have endometrial cancer in 0.3% (n=12), simple hyperplasia without atypia in 1.3% (n=53), and endometrial polyp in 6.6% (n=270) of the cases (18).

In conclusion, it should be noted that the present study has some limitations such as retrospective design, small sample size, and lack of elaborative UCP examination as to include smear and colposcopy. However, the data could still be interpreted in some aspects, as none of the patients exhibited malignancy.

We think that there is still a need for a randomized prospective study about malignant transformation rates of UCPs to guide in evaluation of the necessity of polypectomy.

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