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Necessity of preoperative endometrial sampling for hysterectomies with benign indications

Benign nedenlerle yapılan histerektomilerde preoperatif endometriyal örnekleme gerekliliği

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Abstract

Aim. The purpose of this study is to investigate the necessity of preoperative endometrial sampling for hysterectomies with benign indications. **Methods.** Sixty-eight cases that had hysterectomy for benign indications at Celal Bayar University Department of Obstetrics and Gynecology between 2005 and 2008 were investigated retrospectively. All subjects had undergone dilatation and curettage (D&C) under surface anesthesia before the surgery. Data about age of subjects, hysterectomy indications, endometrial sampling results and endometrial pathology findings of hysterectomy materials were collected from patient files and pathology reports. Preoperative and postoperative endometrial pathology results were compared. **Results.** The mean age of the patients was 47 (±8.0). Hysterectomy indications were myoma uteri in 50 cases, resistant bleeding in 12 cases, adnexal mass in 5 cases and retention of intrauterine device in 1 case. Preoperative endometrial samplings revealed proliferative endometrium, secretory endometrium, endometrial hyperplasia, endometrial polyp, chronic endometritis and insufficient material, but not endometrial cancer. Postoperative pathologies of the endometrium were proliferative endometrium, secretory endometrium, endometrial hyperplasia, inactive endometrium, atrophic endometrium, basal endometrium and endometrial polyp. **Conclusion.** Preoperative endometrial sampling is not necessary for cases planned to undergo hysterectomy for benign indications.

Key words: Hysterectomy, endometrial sampling, preoperative

Özet

Amaç. Bu çalışmanın amacı benign nedenlerle histerektomi planlanan olgularda operasyon öncesi endometriyal örneklemenin gerekliliğini değerlendirmektir. **Yöntem.** 2005-2008 yılları arasında Celal Bayar Üniversitesi Kadın Hastalıkları ve Doğum Anabilim Dalı'nda benign nedenle histerektomi yapılan 68 olgu retrospektif olarak incelendi. Olguların hepsine operasyon öncesi yüzeyel anestezi ile dilatasyon ve küretaj (D&C) uygulanmıştı. Olguların yaşları, histerektomi endikasyonları, endometriyal örnekleme sonuçları ile histerektomi materyalindeki endometriyum bulguları verileri hasta dosyaları ve patoloji raporlarından elde edildi. Preoperatif ve postoperatif endometriyum bulguları karşılaştırıldı. **Bulgular.** Olguların yaş ortalamaları 47 (±8.0), histerektomi endikasyonları 50 olguda myoma uteri, 12 olguda tedaviye dirençli kanama, 5 olguda adneksiyel kitle ve 1 olguda rahim içi araç retansiyonu idi. Preoperatif endometriyal örnekleme bulguları proliferatif endometrium, sekretuar endometrium, endometrial hiperplazi, endometrial polip, kronik endometrit ve yetersiz materyal şeklinde olup endometriyal kanser saptanmadı. Postoperatif endometriyal bulgular proliferatif endometrium, sekretuar endometrium, endometriyal hiperplazi, inaktif endometrium, atrofik endometrium, bazal endometrium ve endometriyal polip şeklinde idi. **Sonuç.** Bu çalışmada benign nedenlerle histerektomi planlanan olgularda operasyon öncesi endometriumun örneklenmesinin gerekli olmadığı görülmüştür.

Anahtar sözcükler: Histerektomi, endometriyal örnekleme, preoperative

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Introduction

Hysterectomy is the most frequently performed operation in gynecology and every year approximately 600.000 women undergo hysterectomy in the USA [1]. Most of the hysterectomies have benign indications [2]. These indications are myoma uteri, pelvic organ prolapse, endometriosis, adenomyosis, refractory menorrhagia, chronic pelvic pain and infection. Endometrial sampling is performed routinely in many clinics prior to the operation in order to exclude an endometrial malignancy, however there are not enough studies in literature investigating the necessity of preoperative endometrial sampling. We have evaluated cases that have undergone endometrial sampling prior to their hysterectomy for benign indications.

Materials and methods

This is a retrospective study evaluating patients that have applied to Celal Bayar University Obstetrics and Gynecology Department between 2005-2008. Sixty-eight patients who had hysterectomy for benign indications and had endometrial sampling prior to the operation have been included. The hysterectomy indications for these patients were myoma uteri, refractory menorrhagia, adnexal mass and retained intrauterine device. In patients with myoma uteri, hysterectomy decision was made by considering the presence of anemia, pelvic pain or pressure symptoms in fertile patients In the group with refractory menorrhagia, hysterectomy was performed in patients with advanced age without organic pathology, and in patients who had excessive bleeding despite receiving medical therapy in the preceding 3 months. Patients underwent diagnostic laparatomy and concomitant hysterectomy for adnexal mass were included as study population. In the case of retained intrauterine device, hysterectomy was performed after an unsuccessful attempt to remove it.. Cases with uterine, ovarian, cervical or other malignancies were not included. Endometrial sampling was performed preoperatively under sedation Preoperative and postoperative samples were evaluated by the Pathology Department of our university by the same team. Age, hysterectomy indications, preoperative endometrial sample findings in hysterectomy specimens were obtained from patient files and pathology reports. Preoperative and postoperative endometrial pathology results were compared.

Results

Mean age of the cases was 47±8.0. Indications for hysterectomy were myoma uteri in 50 (%73.5), refractory menorrhagia in 12 (%17.6), adnexal mass in 5 (%7.4), intrauterine device retention in 1 (%1.5) case. (Table 1). Preoperative endometrial sampling results were as follows: 24 (%35.3) proliferative endometrium, 24 (%35.3) secretory endometrium, 4 (%5.9) endometrial hyperplasia, 2 (%2.9) endometrial polyp, 1 (%1.5) chronic endometritis and 13 (%19.1) insufficient material (Table 2). The mean time interval between endometrial sampling and the operation was 12±3 days. Postoperative endometrial results were as follows: 22 (%32.4) proliferative endometrium, 20 (%29.4) secretory endometrium, 3 (%4.4) endometrial hyperplasia, 11 (%16.2) inactive endometrium, 9 (%13.2) atrophic endometrium, 2 (%2.9) basal endometrium and 1 (%1.5) endometrial polyp (Table 3). Preoperative endometrial pathology results and hysterectomy specimen results are compared in Table 4. According to these results 13 cases of insufficient material were atrophic endometrium in 6, insufficient material in 4,

basal endometrium in 2 and secretory endometrium in 1case. Twenty-four proliferative endometrium cases were proliferative in 7, secretory in 11, endometrial hyperplasia in 1 and inactive endometrium in 5 specimens. Twenty-four secretory endometrium cases turned out to be proliferative endometrium in 14, secretory endometrium in 8, atrophic endometrium in 1 and endometrial polyp in 1 case. Preoperative endometrial hyperplasia of 4 cases were identified as proliferative endometrium in 1, endometrial hyperplasia in 2 and insufficient material in one case. Malignancy was not identified in any of the pathology specimens.

Table 1. Age and hysterectomy indications of patients.

Feature	Cases (n=49)
Age (Mean ± SD)	47±8.0
Indications	
Myoma uteri	50 (%73.5)
Refractory menorrhagia	12 (%17.6)
Adnexal mass	5 (%7.4)
IUD retention	1 (%1.5)

Table 2. Endometrial sampling results according to hysterectomy indications.

Indication	PE	SE	EH	EC	EP	CE	IM
Myoma Uteri	18	22	-	-	2	-	8
Refractory menorrhagia	5	2	4	-	-	1	-
Adnexal mass	1	-	-	-	-	-	4
IUD retention	-	-	-	-	-	-	1

PE; proliferative endometrium; SE; secretory endometrium, EH; endometrial hyperplasia, EC; endometrial carcinoma, EP; endometrial polyp, CE; chronic endometritis IM; insufficient, material

Table 3. Endometrial results of hysterectomy specimens according to indications.

Indication	AE	PE	SE	EH	EC	EP	IE	BE
Myoma Uteri	4	21	16	1	-	-	6	2
Refractory menorrhagia	-	1	3	2	-	1	5	-
Adnexal mass	4	-	1	-	-	-	-	-
IUD retention	1	-	-	-	-	-	-	-

AE; atrophic endometrium, PE; proliferative endometrium; SE; secretory endometrium, EH; endometrial hyperplasia, EC; endometrial carcinoma, EP; endometrial polyp, İE; inactive endometrium, BE; basal endometrium,

Table 4. preoperative and postoperative endometrium results.

Endometrial sampling results	Endometrial results in hysterectomy specimen							
	AE	PE	SE	EH	EC	EP	IE	BE
IM	6	-	1	-	-	-	4	2
PE	-	7	11	1	-	-	5	-
SE	1	14	8	-		1	-	-
EH	-	1	-	2	-	-	1	-
EC	-	-	-	-	-	-	-	-
EP	2		-	-	-	-	-	-
CE	-	-	-	-	-	-	1	-

IM; insufficient material, PE; proliferative endometrium, SE; secretory endometrium, EH; endometrial hyperplasia, EC; endometrial carcinoma, EP; endometrial polyp, CE; chronic endometrium, IE; inactive endometrium, BE; basal endometrium, AE:atrophic endometrium,

Discussion

Preoperative endometrial histopathological identification is applied in some clinics by D&C or office endometrial sampling for patients with planned hysterectomy. The purpose of this procedure is to exclude an endometrial malignancy, however the necessity of it is debatable and there are not enough studies in literature about this subject. In our retrospective analysis endometrial carcinoma or atypical hyperplasia was not found in any of the cases of preoperative sampling. These results were confirmed by hysterectomy specimen evaluation. In the study of Stovall et al. [3] preoperative endometrial sampling was made by three different methods. The authors concluded that endometrial sampling prior to hysterectomy should not be made routinely except in cases of postmenopausal bleeding and in patients with abnormal uterine bleeding over 35 years of age. Çelik et al. [4] have retrospectively evaluated the cases in their own clinic and similarly to our study they have found that routine preoperative endometrial sampling in myoma uteri patients is not necessary.

Myoma uteri is the most frequent indication for hysterectomies performed for benign conditions. [2]. In our study 73.5% of the hysterectomies were for myoma uteri. At this point the question of whether there is a concomitant endometrial pathology arises. Inal et al evaluated prehysterectomy and posthysterectomy endometrial pathology findings in 140 myoma uteri cases [5]. According to this study prehysterectomy endometrial hyperplasia was found in 7.1 %of the patients with myoma whereas endometrial carcinoma was found in only 0.7% of patients with myoma Endometrial carcinoma could not be detected in any of our myoma patients either preoperatively or postoperatively. Only in one case there were proliferative endometrial findings preoperatively and it turned out to be endometrial hyperplasia in the hysterectomy specimen. However the patient number is relatively small in our study.

In this study it is obvious that especially in hysterectomies for myoma uteri, preoperative endometrial sampling has not proven any benefit. Few studies in the literature support our results [3-5]. This does not however mean that the endometrium in cases scheduled for hysterectomy should not be evaluated. Today most of endometrial pathologies can be correctly diagnosed by ultrasonography and sonohysterography. Gull et al showed in their study that none of the postmenopausal women with endometrial thickness less than 4 mm on transvaginal ultrasound and postmenopausal bleeding had endometrial carcinoma [6]; therefore ultrasonography has come to the forefront for evaluating the endometrium in recent years. In another recent study on peri- and postmenopausal women with abnormal uterine bleeding, the diagnostic rate has been found to be 89% for saline infusion sonography (SIS) and 52% for endometrial biopsy concluding that SIS is superior to endometrial biopsy in diagnosing endometrial pathologies [7].

In conclusion, in hysterectomies with benign indications, especially for myoma uteri, routine endometrial biopsy or sampling does not prove any benefit, more over increases unnecessary intervention rates, complications and cost. Endometrial evaluation should be done by noninvasive procedures such as ultrasonography rather than endometrial sampling. These results should be supported by greater study groups so that they will contribute to the change of habits.

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