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Comparison Of Hysteroscopic Findings And Histopathologic Diagnoses In Premenopausal Patients With Abnormal Uterine Bleeding

Anormal Uterin Kanaması Olan Premenopozal Kadınlarda Histeroskopik Bulgular Ve Histopatolojik Tanıların Karşılaştırılması

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ÖZET

Amaç: Anormal uterin kanaması olan histeroskopi ve biyopsi yapılan premenopozal kadınlarda histeroskopi bulguları ile histopatolojik tanıların karşılaştırılması bu çalışmanın amacını oluşturur.

Gereç ve Yöntemler: Ocak 2012 ve Şubat 2014 tarihleri arasında Ankara Dr Zekai Tahir Burak Kadın Sağlığı Eğitim ve Araştırma Hastanesi'ne anormal uterin kanama şikâyeti ile başvuran 1918 premenopozal hasta çalışma grubunu oluşturdu. Histeroskopi hasta kayıtlarından ,demografik ve reprodüktif özellikler kaydedildi. Bütün hastalara histeroskopi ve endometriyal biyopsi yapıldı.Histeroskopiler 4 mm.' lik Karl-Storz teleskobu ve salin infüzyonu kullanılarak yapıldı.Histeroskopik bulgular ve histopatolojik tanılar normal,endometriyal polip,submüköz myom,endometriyal hiperplazi,endometriyal kanser ve diğerleri(kayıp rahim içi araç,adezyon) olarak sınıflandırıldı.

Bulgular: 1918 histeroskopik bulgu içinde normal endometriyum %51.9 ile en sık bulgu olurken, sonra endometriyal polip(%43.6), submükoz myom (%2.3),endometriyal hiperplazi (%1.5) ve kayıp rahimiçi araç veya adezyon(%0.7) tespit edilmiştir. Transvajinal ultrason ile ortalama endometriyum kalınlığı 11 mm olup ,7-20 mm arasında ölçülmüştür.

En sık histopatolojik tanı hastaların %55.5 'inde görülen normal endometriyum iken, endometriyal polip %40.6 ile en sık ikinci tanıdır. Submüköz myom(%2.3),endometriyal hiperplazi (%1.5) ve kayıp rahim içi araç veya adezyon(%0.7) diğer histopatolojik tanılardır.

Histeroskopik bulgu ve histopatolojik tanılar içinde endometriyal kansere rastlanmamıştır.

Sonuç: Histeroskopi premenopozal kadınlarda anormal uterin kanamanın değerlendirilmesinde önemlidir. Histeroskopik bulgular ve tanılar tecrübeli ellerde birbiriyle uyumludur.

Anahtar Kelimeler: Anormal Uterin Kanama,Premenopoz,Histeroskopi

ABSTRACT

Aim: To compare the hysteroscopic findings and histopathologic results of premenopausal women with abnormal uterine bleeding who underwent hysteroscopy and biopsy.

Material and Methods: 1918 premenopausal patients who attended to the Gynecology Department of Ankara Dr Zekai Tahir Burak Women' Health, Education and Research Hospital between January 2012 and February 2014 with abnormal uterine bleeding (AUB) constituted the study group. In the hysteroscopy logs, demographic and reproductive features of patients were identified. All the patients underwent hysteroscopy and endometrial biopsy. Hysteroscopies were performed by using a 4 mm Karl-Storz telescope with saline as distension medium. Hysteroscopic findings and histopathological results were classified as normal, endometrial polyp, submucous myoma, endometrial hyperplasia, endometrial cancer and others (lost intrauterine device, adhesion).

Results: Among 1918 hysteroscopic findings, normal endometrium was the most frequent finding (51.9%) and then endometrial polyp (43.6%),submucous myoma (2.3%),endometrial hyperplasia (1.5%) and lost intrauterine device or adhesion (0.7%) was reported. The median endometrial thickness measured by transvaginal ultrasonography was 11 mm with a range of 7-20 mm. The most frequent histopathologic diagnosis

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was normal endometrium in 55.5% of patients and endometrial polyp was the second most common diagnosis with an incidence of 40.6%. Submucous myoma (2.3%),endometrial hyperplasia (1.5%) and lost intrauterine device or adhesion (0.7%) were the other histopathologic diagnoses. No endometrial cancer was reported as hysteroscopic finding and histopathologic diagnosis.

Conclusion: Hysteroscopy is important in the evaluation of AUB in premenopausal women. Hysteroscopic findings and histopathologic diagnoses might correlate well in the experienced hands.

Key words: Abnormal Uterine Bleeding, Premenopause, Hysteroscopy

Introduction

Since 1970s, hysteroscopy has been used as a safe endoscopic technique in diagnosis and treatment of uterine cavity pathologies in gynecologic practice (1,2). It has a great diagnostic accuracy since it allows the direct visualization of the pathology. Diagnostic and simple operative hysterescopy can be performed at office without any anesthesia and analgesia (3).

At the same time, hysteroscopy has reduced the hospital stay, morbidity and health costs (4,5).

Abnormal uterine bleeding(AUB) is any type of bleeding that is excessive or occurs outside of normal cyclic menstruation and nearly two-thirds of hysterectomies are due to AUB (6). In the diagnosis of AUB, a detailed history ,pelvic examination and transvaginal ultrasonography are necessary and the cause of the bleeding is established in only 50-60 % of AUB cases (6). Hysteroscopy with directed biopsy has become the "gold standard" for the diagnosis endometrial pathologies in patients with AUB (6,7).

A new classification system (PALM-COEIN) has been reported by the International Federation of Gynecology and Obstetrics working group on menstrual disorders for causes of AUB in nongravid women of reproductive age (8).There are 9 main categories, which are arranged according to the acronym PALM-COEIN: polyp; adenomyosis;leiomyoma; malignancy and hyperplasia; coagulopathy; ovulatory dysfunction; endometrial; iatrogenic; and not yet classified. According to PALM-COEIN classification system, AUB should be abandoned to describe a more specific etiology such as ovulatory dysfunction (6).

In this study, we aimed to report the hysteroscopic findings and histopathologic results of women with AUB who underwent hysteroscopy and biopsy.

Material and Methods

This is a retrospective descriptive study carried out in the Gynecology Department of Ankara Dr Zekai Tahir Burak Women' Health , Education and Research Hospital between January 2012 and February 2014.The study was approved by the Ethics Committee of Dr Zekai Tahir Burak Women' Health , Education and Research Hospital.

In the hysteroscopy logs, 1918 premenopausal patients with AUB were identified; demographic and reproductive characteristics were collected retrospectively from the hysteroscopy logs.

Hysteroscopies were performed by using a 4 mm Karl-Storz telescope with saline as distension medium. Hysteroscopies were preferentially performed during the early follicular phase of menstrual cycle when there was no or minimal bleeding. All diagnostic hysteroscopies were performed without any anesthesia or analgesia and no antibiotic administration was used before or after the procedure. Histologic specimens of the endometrium or lesions were obtained by endometrial curettage if hysteroscopic appearance was normal. If hysteroscopic appearance was abnormal, subsequent surgical removal was performed by hysteroscopic resectoscope.

Hysteroscopic findings were defined according to the appearance of the surface of uterine cavity before biopsy. Histopathological result was accepted as the final diagnosis and a standard histopathological criterion was used.

Hysteroscopic findings and histopathological results were classified as normal, endometrial polyp, submucous myoma, endometrial hyperplasia, endometrial cancer and others (lost intrauterine device, adhesion).

Results

During the study period, 1918 non-menapousal women with AUB underwent hysteroscopic evaluation of uterine cavity and subsequent endometrial histopathological sampling. Of these women, the median age was 37 years between 18 to 51years. 37.4% of the patients were nulliparous, 10.6% primiparous and the rest (48%) were multiparous. 1266 (66%) women were non-obese while the others were obese. Among obese women, 214 (11.2%) were morbid-obese. The median endometrial thickness measured by transvaginal ultrasonography was 11 mm with a range of 7-20 mm (Table1).

Table 1: Demographic data of patients with AUB

Data	Values
Age (years)	37 (18-51)
Nulliparity	747 (37.4)
Primiparity	212 (10.6)
Multiparity	959 (48.0)
Non-obese (BMI <30 kg/m^2)	1266 (66.0)
Obese (BMI ≥30 kg/m^2)	652 (34.0)
Morbid obese (BMI ≥35 kg/m^2)	214 (11.2)
Endometrial thickness (mm)	11 (7-20)
Values are given as median (minimum-maximum) or number (percentage).	

In our study, menorrhagia (30%) was the most frequent complaint in women with AUB. 21.7% of patients presented with menometrorrhagia which was the second most frequent complaint. The rarest complaint was hypomenorrhoea (6.7%) (Table 2).

Table 2: Complaints in patients with AUB

Complaints	Values
Menorrhagia	615 (32.1)
Menometrorrhagia	416 (21.7)
Metrorrhagia	306 (16.0)
Polimenorrhoea	255 (13.3)
Oligomenorrhoea	198 (10.3)
Hypomenorrhoea	128 (6.7)
Total	1918
Values are given as number (percentage).	

Table 3 presents the hysteroscopic findings in patients with AUB without the histologic diagnosis. 51.9% of 1918 women had no intrauterine pathology. Endometrial polyp was the most frequent hysteroscopic finding reported in 779 (40.6%) of women. The other findings were myoma uteri in 45 (2.3%) women, endometrial hyperplasia in 28 (1.5%) women and lost intrauterine device (IUD) and/or intrauterine adhesion in 14 (0.7) women. No endometrial cancer case was found during hysteroscopy.

Table 3: Hysteroscopic findings in patients with AUB

Findings	Values
Normal	994 (51.9)
Endometrial polyp	837 (43.6)
Submucous myoma	45 (2.3)
Endometrial hyperplasia	28 (1.5)
Others (lost intrauterine device, adhesion)	14 (0.7)
Endometrial cancer	0 (0.0)
Total	1918

Values are given as number (percentage)

In Table 4, we showed the histopathological diagnosis in patients with AUB. The most common histologic diagnosis was normal endometrium which was reported in 1065 (55.5%) women. The second most common histopathological diagnosis was endometrial polyp and occured in 779 (40.6%) specimens, smaller than the number reported based on hysteroscopy. No endometrial cancer cases were reported.

Table 4: Histopathological diagnosis in patients with AUB

Diagnosis	Values
Normal	1065 (55.5)
Endometrial polyp	779 (40.6)
Submucous myoma	40 (2.3)
Endometrial hyperplasia	20 (1.5)
Others (lost intrauterine device, adhesion)	14 (0.7)
Endometrial cancer	0 (0.0)
Total	1918

Values are given as number (percentage)

Discussion

Diagnostic hysteroscopy has become the ‘‘gold standard’’ for the diagnosis of endometrial pathologies in patients with AUB (6,7). Since it is easy, safe with low complication rate, it has been used widely for years.AUB is the most common hysteroscopy indication in the literature (9, 10) .In this study, we examined the results of premenopausal patients with complaint of AUB who underwent diagnostic hysteroscopy.

Among 1918 patients, normal endometrium was the most frequent histopathologic diagnosis (55.5%) and most frequent hysteroscopic finding (51.9%) consistent with the literature (9,11). Lasmar et al. reported 46.6% normal endometrium in 4054 women with AUB (9). But in that study 10% of the patients were over 66 years old. On the other hand, depending on the patient selection criteria, normal endometrium was reported as low as 5.4% by Hamou et al.(12). Different from these studies, only premenopausal women with AUB were included in our study.

The incidence of endometrial polyp was 40.6% in our study which was reported between 9.1-45.9% in the literature (12-13). Lasmar et al. reported endometrial polyps as the most frequent hysteroscopic finding (33.6%), whereas its incidence was 27.5% after histopathologic diagnosis (9). Also in our study, endometrial polyp incidence decreased from 43.6 % to 40.6% after histopathologic diagnosis. Although the endometrial polyps are treated easily by hysteroscopy, the presence of polyps might increase the risk of missing hyperplasia (14). So de Wit et al. always suggest always to take biopsies of the endometrium when diagnostic hysteroscopy is performed. We also perform endometrial biopsy in every diagnostic hysterescopy procedure in our clinic.

In our study, myoma uteri incidence was 2.3% which was lower than the literature (14, 15, 16).

Lasmar et al. reported the incidence of submucous myoma as 0.6% among 4054 women with AUB similar to our study (9). But different from that study, our hysteroscopic finding and pathology results of submucous myoma were same (2.3%), whereas in Lasmar’s study myoma incidence decreased from 7.5% to 0.6% after histopathology reports (9). These different results might be attributed to the patient selection criteria and retrospective design of the studies.Another possible explanation for lower incidence of submucous myoma might be the hysterectomy request of patients with AUB before hysteroscopy.

Lost intrauterine device should be kept in mind as a cause of AUB in premenopausal women which was 0.7% in our study. Interestingly, Guin et al. reported 7% lost intrauterine device as a cause of AUB in India (15).

The incidence of endometrial hyperplasia varies between 3.2-30% in women with AUB (14-15). Our endometrial hyperplasia incidence was 1.5% lower than literature. Interestingly, Lasmar et al. have reported very similar rate of endometrial hyperplasia as hysteroscopic finding (15%) and histopathologic diagnosis (15.1%) (9).

In our study,there was no endometrial cancer case similar to the study of Guin et al (15).

As the age of the patients advances ,the incidence of premalignant and malignant conditions are likely to increase.Since we excluded postmenopausal patients,our endometrial hyperplasia incidence was lower than the literature. On the other hand,women with heavy bleeding or women who do not want to come for hysteroscopy again undergo directly to conventional curettage. This might explain the very low incidence of our endometrial hyperplasia incidence and no cancer case. This is the most important limitation of our study. Retrospective design and inter-observer differences in hysteroscopy can be accepted as the other disadvantages of our study.

Only the inclusion of premenopausal women might be the advantage of our study different from the literature.

In conclusion, hysteroscopy is an important instrument in the evaluation of AUB in premenopausal women. Hysteroscopic findings and histopathologic diagnoses might correlate well in the experienced hands. But future prospective studies are necessary to establish this correlation especially in premalignant and malignant conditions.

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