CLINICAL STUDY

Hysteroscopic Management of Intrauterine Lesions in Postmenopausal Women

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Abstract

Objective: To evaluate the safety and effectiveness of hysteroscopic surgery in the management of intrauterine lesions and abnormal uterine bleeding in postmenopausal women.
Materials and Methods: The medical records of twelve postmenopausal women admitted for abnormal uterine bleeding who underwent hysteroscopic intervention due to intrauterine polyps or uterine leiomyomas between January 2002 and December 2003 have been reviewed. Ninety premenopausal patients operated during the same period of time were served as controls. A transvaginal sonography and sonohysterography was performed preoperatively to assess size and location of intrauterine lesions in all patients. In postmenopausal women, endometrial sampling was performed if endometrium was >5 mm.
Results: One hundred two procedures were performed successfully by hysteroscopy. Twelve (11.7%) women were postmenopausal (study group) and the remaining 90 patients (89.3%) were premenopausal (controls). In the control group, myomectomy was completed in a second operation for a deeply embedded leiomyoma in two (2.2%) cases. No re-operation was needed in postmenopausal women. All the operations were completed without intraoperative control either with laparoscopy or ultrasonography in postmenopausal women, but laparoscopy was included in the procedure in 8 (7.8%) cases for additional adnexal mass or for sterilization request in the premenopausal group. Mean operating time and mean postoperative hospital stay was not significantly different between the groups. The only complication was one case of uterine perforation in a postmenopausal patient operated for endometrial polyp, in which operative specimen included malignant cells that were not diagnosed during the preoperative endometrial biopsy. During mean follow-up of 11 months (range 5-28 months), one women from each group underwent hysterectomy.
Conclusion: Hysteroscopic surgery was found to be safe and effective in the management of postmenopausal women with intrauterine lesions and abnormal uterine bleeding.

Keywords: hysteroscopy, menopause, leiomyoma, submucous, polyps, endometrial

Özet

Postmenopozal Kadınlarda İntrauterin Lezyonların Histeroskopik Tedavisi

Amaç: İntrauterin lezyon ve anormal uterin kanaması bulunan postmenopozal kadınlarda histeroskopik cerrahinin etkinliğini ve güvenilirliğini değerlendirmek.
Materyal ve Metot: Ocak 2002-Aralık 2003 tarihleri arasında anormal uterin kanama yakınması ile başvuran ve intrauterin polip ya da myom nedeniyle histeroskopik girişim uygulanan 12 postmenopozal olgunun kayıtları incelendi. Aynı dönemde opere edilen 90 premenopozal hasta ise kontrol grubunu oluşturdu. Tüm olgulara preoperatif evrede lezyonların boyutlarının ve yerinin saptanması amacıyla transvajinal sonografi ve sonohisterografi uygulandı. Postmenopozal kadınlarda eğer endometrial kalınlık >5 mm ise endometrial örnekleme yapıldı.
Sonuçlar: Çalışma döneminde 102 histeroskopik girişim başarı ile uygulandı. Oniki (%11.7) hasta postmenopozal iken (çalışma grubu), kalan 90 (%89.3) olgu premenopozaldi (kontrol grubu). Kontrol grubunda iki (%2.2) olguda derin yerleşmiş myom nedeniyle ikinci operasyon uygulandı. Postmenopoz grubunda operasyon tekrarı ihtiyacı olmadı. Postmenopozal kadınlarda laparoskopi ya da ultrasonografi ile intraoperatif kontrol uygulanmazken, premenopoz grubunda eşik eden adneksi-

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yal kitle ya da sterilizasyon istemi nedeniyle 8 (%7.8) olguda işleme laparoskopi eklendi. Gruplar arasında ortalama operasyon süresi ve ortalama hastanede kalış süresi arasında anlamlı bir fark saptanmadı. Saptanan tek komplikasyon, endometrial polip nedeniyle opere edilen ve preoperatif endometrial değerlendirmede saptanmamış malign endometrial hücreler belirlenen postmenopozal bir kadında ortaya çıkan uterus perforasyonu idi. Ortalama 11 aylık takip süresince (5-28 ay arasında) çalışma ve kontrol grubundan birer olguya histerektomi yapıldı.

Tartışma: Anormal uterin kanama ve intrauterin lezyonu olan postmenopozal kadınlarda histeroskopik cerrahi güvenli ve etkin bir yaklaşımdır.

Anahtar sözcükler: histeroskopi, menopoz, leiomyoma, submukoz, polip, endometrium

Introduction

Intrauterine pathology includes submucous leiomyomas and endometrial polyps. These pathologies often result in abnormal uterine bleeding (1). In the past, the treatment of benign uterine lesions required, in many instances, a hysterectomy. Modern resectoscopic techniques have expanded treatment options for patients with intrauterine lesions other then hysterectomy (2,3). Although many authors have published their results for treatment of intracavitary lesions in premenopausal women, there is limited data about the safety and efficacy of transcervical resectoscopic procedures for the management of abnormal uterine bleeding in postmenopausal women.

Thus, the aim of our study was to evaluate the safety and effectiveness of hysteroscopic surgery in the management of intrauterine lesions and abnormal uterine bleeding in postmenopausal women.

Materials and Methods

We reviewed the records of twelve postmenopausal women admitted for abnormal uterine bleeding who underwent hysteroscopic intervention due to intrauterine polyps or leiomyomas between January 2002 and December 2003. Ninety premenopausal patients operated during the same period of time were served as controls. All subjects were assessed with a medical and gynecologic history and examination. A transvaginal sonography and sonohysterography was performed preoperatively to assess size and location of intrauterine lesions in all patients. In postmenopausal women, endometrial sampling was performed if endometrium was >5 mm.

One night before the operation 200 µg misoprostol was introduced into the posterior vaginal fornix to facilitate cervical ripening and dilatation. Operative hysteroscopy was performed with a continuous flow 9 mm resectoscope. Uterine distension was provided by 1.5% glycine solution.

All resections were performed using a wire unipolar loop. During the procedure glycine solution inflow and outflow was carefully monitored. All resected pieces were sent for histological examination and in cases with suspected malignancy prompt histological evaluation was provided.

Treatment was categorized as polypectomy, polypectomy plus endometrial ablation, myomectomy, myomectomy with polypectomy and endometrial ablation only.

Statistical analysis was performed using SPSS 10.0 for Windows (SPSS Inc. Chicago, IL. USA) statistical software. Descriptive statistics were shown as arithmetic mean±standard deviation. After the tests of normality, we used independent samples t test and Fisher's exact test to investigate the differences between two groups. A p value less than or equal to 0.05 was considered as statistically significant.

Tablo 1. Intraoperative and postoperative data of the study population

	Study group (n=12)	Control group (n=90)	Statistical significance (p)
Age*	54.3±7.8	43.6±8.6	<0.0001‡
Intraoperative diagnosis†			
• Submucous leiomyoma	2 (16.7)	30 (33.3)	
• Endometrial polyp	10 (83.3)	60 (66.7)	0.33
Need for re-operation†	0	2 (2.2)	1.0
Complication†	1 (8.3)	0	0.11
Diagnosis of malignant disease†	1 (8.3)	0	
Mean operating time (min) *	21.4±6.1	18.9±10.2	0.41
Postoperative hospital stay (days) *	1.8±2.0	1.2±0.4	0.62

*Presented as mean±standard deviation (SD)
†Presented as number and percent
‡p value is considered extremely significant

Results

One hundred two procedures were performed successfully by hysteroscopy (Table 1). Twelve (11.7%) women were postmenopausal (two submucous myomas and 10 endometrial polyps) and the remaining 90 patients (89.3%) were premenopausal (thirty submucous myomas and 60 endometrial polyps). All the operations were completed without intraoperative control either with laparoscopy or ultrasonography in postmenopausal women, but laparoscopy was included in the procedure in 8 (7.8%) cases for additional adnexal mass or for sterilization request in the premenopausal group.

The incidence of submucous myomas was found to be higher in premenopausal women compared to postmenopausal patients (33.3% vs. 16.7%, respectively). In two (2.2%) cases myomectomy was completed in a second operation for a deeply embedded leiomyoma in premenopausal group. No reoperation was needed in postmenopausal women (Table 1).

The only complication was one case of uterine perforation in a postmenopausal patient operated for endometrial polyp, in which operative specimen included malignant cells that were not diagnosed during the preoperative endometrial biopsy. The pathology of this patient is reported as clear cell carcinoma of the uterus. It's suspected that the carcinoma is originated from the polyp itself.

The mean operating time and mean postoperative hospital stay was not significantly different between the two groups. During mean follow-up of 11 months (range 5-28 months), one women from each group underwent hysterectomy (one for endometrial cancer and one for menorrhagia).

Discussion

Management of intrauterine lesions is a daily problem. Endometrial polyps are benign localized protrusions endometrial tissue that over covered by epithelium and contain variable amounts of gland, stroma and blood vessels. Submucous leiomyomas are smooth muscle tumors cause abnormal uterine bleeding as well as dysmenorrhea. Endometrial polyps appear in patients with hormonal imbalance, hypertension and/or obesity and late menopause. Tamoxifen therapy is also associated with development of endometrial polyps and adenocarcinoma also. The etiopathogenesis of submucous leiomyomas is controversial.

Transvaginal sonography allows detection of a uterine pathology in a majority of cases and must therefore be used. Intrauterine lesions especially endometrial polyps and submucous leiomyomas are likely be diagnosed with increasing frequency as transvaginal sonography and sonohysterography is used for evaluating women with abnormal uterine bleeding (4). Classical treatment of polyps is curettage. However this may leave either a pedicle fragment or the entire polyp in situ. In 1976 Neuwirth reported the first use of resectoscope in the treatment of hemorrhagic submucous fibroids (2). Many reports have advocated the use of hysteroscopic surgical approach in the management of abnormal uterine bleeding (5,6).

However, the safety and the feasibility of this minimally invasive technique have to be clarified in postmenopausal women admitted for abnormal uterine bleeding. In a recent study of Shushan et al. hysteroscopic surgery was found to be safe and effective in the management of postmenopausal women with intrauterine lesions (7). Our finding of low complication rate and satisfactory therapeutic advantages were in agreement with other studies concerning the use of this technique in postmenopausal patients (7,8).

Few infectious and hemorrhagic after-effects are reported in the literature (9,10). The most frequently reported complications are uterine perforations and electrolyte disturbances, so some authors have suggested intraoperative control by laparoscopy or ultrasonography during the procedure (11,12). We did not use either intraoperative laparoscopic or ultrasonographic assistance in all patients unless there is an indication for operative laparoscopy.

Hysteroscopic surgery has a low complication rate and offers great success in the management of intracavitary lesions in postmenopausal patients. It allows the correct diagnosis to be made and reduces the need for major surgery.

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