Is resectoscopic treatment of atypical endometrial polyps a safe option?

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Objective: This study was undertaken to evaluate the long-term efficacy and prognosis of hysteroscopic resection and coagulation of the polyp base of endometrial polyps with focal atypia in postmenopausal women.

Study design: In this observational noncomparative study, conservative treatment was offered to 16 patients, with high anesthesiologic risk, who had endometrial polyps with focal atypia and a surrounding atrophic endometrium. To confirm the focality of the lesion, the polyps were analyzed separately from their bases. Patients with atypia in the polyp base were excluded.

Results: After 5 years of follow-up, 13 patients are disease free, 2 underwent vaginal hysterectomy and anneesiectomy due to other causes, and 1 died for cardiac disorders.

Conclusion: Adenomatous polyps with atypia can be treated resectoscopically if the treatment is associated with an accurate histologic examination of the polyp base and its eventual involvement and the features of the remaining uterine mucosa. A thorough follow-up is recommended. Studies on wider casuistries of patients are needed.

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The availability of progressively smaller hysteroscopes increased the feasibility of outpatient endometrial sampling. Hysteroscopically directed biopsy is recommended by the Society of Obstetricians and Gynaecologists of Canada (SOGC) in postmenopause or for fertile women with persistent bleeding and failed medical therapy.1 The use of curettage (D&C), a blind diagnostic procedure, has led gynecologists to an aggressive surgical treatment of precancerous lesions of the endometrium.2 Although in other medical sectors endoscopy has modified surgical management, to date there are no studies regarding the possible use of more conservative surgical treatments.

This seems odd, if we consider that exploration of the uterine cavity is a simple procedure and on the other hand hysterectomy is the most common operation in the world, after cesarean section.3

The direct observation of the uterine cavity can lead to more accurate studies of endometrial precancerous lesions, allowing us to identify lesions that require a more conservative management, like with precancerous or microinvasive lesions of uterine cervix or bowel.

Material and methods

At the Hysteroscopy Service of the Department of Obstetrics and Gynecology at Trieste University, about
1500 office hysteroscopies are performed yearly. In approximately 30% of cases we see endometrial polyps, of which 3% are atypical or cancers. Between 1998 and 2000 we saw 68 atypical endometrial polyps, of which 28 were single, without atypia in the base. In this observational noncomparative study, 16 postmenopausal patients with an endometrial polyp with atypia had cardiovascular disorders and were considered at high risk after preoperative anesthesiologic evaluation. The study was approved by the hospital’s Ethics Committee. The patients were white women, with a median age of 68 years (range 57-81).

The patients gave their consent to the study and discussed with the gynecologist, the anesthetist, and the cardiologist the risk factors associated with conservative treatment and radical treatment. In 4 cases, patients' family members took part in the information process because of the subjects' old age.

The anesthesia risk was assessed at our hospital according to the criteria of ASA. In all cases, the diagnosis of polyp was made in office, without analgesia, by using 1.8-mm hysteroscope in a 3.2-mm diameter outer rigid sheath and 0 degrees direction of view. The uterine cavity was distended with normal saline solution. During examination, the patients' cardiac frequency was measured with a pulsometer. In 2 cases, treatment with atropine 0.5 mg/0.5 mL was necessary to correct a mild bradycardia.

The hysteroscopic criteria for inclusion in the study were as follows: atrophy of the endometrium in the whole cavity and presence of only 1 polyp. Random biopsies of the endometrium were performed to confirm the state of atrophy.

Resection was carried out under mild sedation in the operating room because at the time we had only 10-mm resectoscopes. Surgery lasted from 5 to 11 minutes. We used resecting loops with bipolar electrodes and an electric intensity of 170 W for vaporization (VCI) and 80 W for coagulation (DES). Polyp size varied between 0.8 and 4 cm of maximum diameter. Some polyps were removed completely, others in successive stages. The peduncle, whenever present, and the polyp base (always) were sent to the pathologist in separate vases from the rest of the polyp. As reported in literature, to consider a polyp to be the origin of a primary malignancy 2 criteria must be fulfilled: the base of the polyp must be benign and the surrounding endometrium must be free of malignancy. All the hysteroscopic pictures were photographed to keep the image of the macroscopic features of the polyp.

Endometrial specimens were sent to the Service of Pathological Anatomy of the University of Trieste. The histologic examination was carried out referring to the criteria suggested by Kurman. An atypical endometrial proliferation was designated “focal” if it occupied less than 1 low power (X40) field (4.2 mm in diameter). The absence of stromal invasion was the basic criterion used to differentiate the atypical lesions from adenocarcinoma. The diagnoses were the following: 9 adenomatous polyps (complex hyperplasia) with focal atypia, 6 polyps showed simple hyperplasia with foci of atypia, and 1 polyp had the characteristics of adenocarcinoma with 1 single atypical focus of the glandular component. Only the patients in whom the peduncle and base of the polyp did not show any atypia were included in the study.

None of the 16 patients were on hormone replacement therapy or treated with tamoxifen and none was treated after the biopsy.

Fourteen women had medium/severe hypertension which was controlled pharmacologically.

The patients underwent follow-up with office hysteroscopy once a year until September 2005. Targeted biopsies were performed of suspicious areas.

The 2 patients who requested hysterectomies were operated vaginally as suggested in literature for high risk patients.

**Results**

At the first follow-up examination after 1 year, 1 patient, who had a simple hyperplastic polyp with atypia, showed a small hyperplastic focal area that was biopsied and treated with diathermic coagulation. The histologic examination revealed a simple hyperplastic polyp without atypia. The other patients were disease free.

After 2 years, 1 patient was lost because she underwent vaginal hysterectomy in another hospital because of spotting. Histologic examination of the specimen showed atrophic endometrium. The other patients were disease free.

After 3 years, 1 patient had solid ovarian tumefaction with negative neoplastic markers (CA 125-GCA). She was operated vaginally under spinal anesthesia. The surgical specimen revealed a Brenner’s tumor of the ovary and atrophic endometrium. The other patients were disease free.

Fourteen patients were seen after 4 years: 1 had 2 small endometrial polyps of 2 and 4 mm under the right tubal orifice, where the previous polypectomy was performed. Polyps were removed resectoscopically. They were benign with thin fibroconnective axis and normal endometrium.

Thirteen patients were examined after 5 years, 1 died because of cardiac disorders and age: they were all disease free.

No patient had bleeding at the follow-up examinations. As observed also by other authors, in our series the most frequent localization of polyps and recurrences is the area surrounding tubal orifices, but we are not able to state if recurrences were in the same site of the removed polyp.
Comment

Only hysteroscopy allows the complete removal of endometrial polyps and the assessment of the surrounding endometrium. This technique can promote studies leading to more conservative treatments. The risk of malignant degeneration of endometrial polyps is not well known, but seems to range between 0.5% and 6%. Savelli et al, who performed hysteroscopic removal of endometrial polyps on 509 women, reported 0.8% of malignant degeneration. The study included both menopausal and fertile women.

In our study we analyzed only postmenopausal patients to render our small sample as homogeneous as possible. Serum levels of estrogen and progesterone were tested in all women to confirm the state of menopause. This procedure revealed an adrenal adenoma in 1 patient, who was not enrolled in the study.

Despite reports by other authors, the elevated incidence of hypertension had no statistical significance in our group, because our patients were selected according to the presence of cardiovascular disease and were at old age.

All these patients presented at our hysteroscopic service with postmenopausal bleeding. However, also this datum cannot have statistical significance because 11 of 16 patients were undergoing anticoagulant treatment prescribed by the cardiologist.

To date, the diagnosis of endometrial disease by D&C has led gynecologists to consider the diagnoses of diffuse atypical adenomatous hyperplasia and atypical adenomatous polyp as being the same disease that, according to available guidelines, has to be treated by hysterectomy. Hysteroscopy has changed our approach to the endometrium, allowing us to determine in greater detail the endometrial polyp surrounded by a normal or atrophic endometrium. Resectoscopic polypectomy is a simple intervention, particularly if polyps are small; it can be performed as office procedure owing to the new instruments. These women can afterward undergo hysteroscopic examinations regularly. If polyps reappear, they can be removed precociously, similarly to the way we manage lesions of the portio. There are no reports regarding the time of development and size increase of endometrial polyps in atrophic endometrium or concerning the multifocality of atypical polypoid lesions. In a large study on hysterectomy specimens after diagnosis of carcinoma made by D&C, Kurman and Norris saw that residual carcinoma was present in 58% of resected uteri, but where stromal invasion was not seen, it decreased to only 17% of cases ($P = .001$). These data are comforting and may be the starting point for larger studies with patients on whom more information is available. In particular, hysteroscopy could show if the lesion is on the polyp or on surrounding endometrium, if it is multifocal, and if it involves the polyp base. Our 5-year follow-up data on a rigorously selected series of patients and on focal preneoplastic lesions are promising.

References