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Case report of malignant endometrial polyps

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Abstract The aims of this retrospective review were to determine the frequency of malignant endometrial polyps diagnosed with ambulatory hysteroscopy in the Obstetrics/Gynaecology Department of HDE, Lisbon, between January 2001 and December 2005 and to characterize these cases according to risk factors, sonographic and endoscopic findings tumoral histology, and tumor stage. We found seven cases of malignant endometrial polyps in a total of 1333 polyps initially diagnosed: an incidence rate of 0.53%. These seven patients had a mean age of 68 years (55–82 years), and all were postmenopausal, with five having one risk factor each for endometrial cancer. Metrorrhagia was present in six of the seven patients (85.7%). Ultrasonography was abnormal in all seven patients, with a mean endometrial thickness of 26 mm (range: 12–44 mm). The hysteroscopy images suggested malignancy in all cases. All except one patient had a single polyp. The polyps had volumes between 1.5 and 3 cm³; two were removed completely and five were biopsied. The histological subtype was: mixed endometrioid/serous papillary or clear cell (2), adenocarcinoma with squamous differentiation (2), carcinosarcoma (2), and clear cell carcinoma (1). Malignancy inside polyps is rare, but diagnostic hysteroscopy with visual guided biopsies can identify these cases in the earlier stages. The risk factors are not different from those of other endometrial carcinomas, but the histological subtype seems to point to more aggressive cancers.

Keywords Hysteroscopy · Malignancy · Postmenopausal bleeding · Uterine polyp

Introduction

Endometrial polyps are the most frequent pathology diagnosed during ambulatory hysteroscopies carried out in the setting of the Obstetrics/Gynaecology Department, Hospital Dona Estefânia (Lisbon). In the great majority of these cases the patient is seen and treated in one session through visual control [1]. Endometrial polyps are mostly benign in origin, although malignancy has been reported at an incidence ranging from 0.5 to 4.8% [2, 3].

The objective of this review was to determine the frequency of malignant endometrial polyps treated in our department and to characterize these cases according to risk factors, clinical presentation, pelvic sonography, hysteroscopic findings, histology, and tumoral stage.

Materials and methods

A retrospective descriptive analysis of all cases of suspected malignant endometrial polyps submitted to diagnostic hysteroscopy in the ambulatory unit of the Obstetrics and Gynaecology Department between January 2001 and December 2005 was carried out. Diagnostic hysteroscopy was performed in women with abnormal uterine bleeding or in asymptomatic women in whom the endometrium was abnormally thick (>4 mm), as determined by routine vaginal sonography.

Operative endoscopy was carried out in an ambulatory setting, using a paracervical block. We used a 5.5-mm or 3.9-mm rigid continuous flow hysteroscopic system with 12° or 30° optics (Olympus, Melville, N.Y.), a five French working channel, and saline for uterine distension. The specimens were removed using graspers, scissors, or a bipolar device (Versa point) under visual control, and all specimens were sent for histological examination. A twizzle electrode was generally used for coagulating and cutting.

We restricted the term polyp to a well-defined elevation – either single or multiple – above the endometrial surface that occurred on a non-raising background endometrium, as

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determined by hysteroscopy, which histological examination confirmed to be either malignant or nonmalignant. We used the hysteroscopy reports and histological results to identify these cases.

The risk factors evaluated were: age, age of menopause, hypertension (all cases under anti-hypertensive medication), obesity (body mass index ≥ 30), diabetes mellitus (women diagnosed previously by a general practitioner and under therapy with insulin or oral agents), and use of hormonal treatments. We also analyzed the indications for the initial examination: pelvic sonography, hysteroscopic findings, histology results, and tumoral stage after surgery.

The cancers were staged according to FIGO (International Federation of Gynecology and Obstetrics).

Results

Endometrial cancer arising in polyps occurred in seven patients and accounted for 0.53% of the 1333 endometrial polyps diagnosed over a 5-year period in our Ambulatory Hysteroscopic Unit. These seven patients had a mean age of 68 years (range: 55–82 years), and all of the malignant polyps were in postmenopausal women. The mean menopausal age of these patients was 48.7 years (range: 44–52 years).

Of the patient cohort, three women had diabetes mellitus (42.9%), four had hypertension (57.1%), and two were obese (28.6%). None of these seven women had been given hormone replacement therapy. One patient had been treated previously with tamoxifen for breast cancer during 5 years.

Metrorrhagia was the presenting symptom in six of the seven cases ultimately diagnosed with malignant endometrial cancer in the polyps (85.7%).

In all patients vaginal ultrasound showed images of abnormal endometrial thickness (>4 mm), however a polyp was suspected in only one case. The median endometrial thickness was 26 mm (range: 12–44 mm).

The appearance of the polyps in the seven women ultimately assessed to have a malignancy was suspicious upon hysteroscopy. The largest polyp was between 1.5 and

3 cm in diameter. The tumor was located solely in the fundus in two cases and in the body in the other five. All of these patients had only one polyp, with the exception of one patient with three polyps. The entire polyps were removed in two women, and a direct biopsy was carried out in the other five.

The mean time between operative hysteroscopy and surgery was 38 days (range: 17–57 days). Surgical treatment consisted of total abdominal hysterectomy and bilateral salpingo-oophorectomy in all cases, including pelvic lymphadenectomy in four.

Postsurgical histological diagnoses were:

- two adenocarcinoma with squamous differentiation;
- two carcinosarcoma;
- one mixed endometrioid/serous papillary;
- one mixed endometrioid/clear cell;
- one showed no sign of malignancy inside the uterus (Table 1, case number 3).

The surgical staging were: two cases of stage 1a endometrial carcinoma, four of stage 1b, and one of stage 1c. Dependent on tumoral stage, four women had been given adjuvant radiotherapy.

All patients were free of relapse after a mean follow-up of 27 months (range: 2–50 months).

See Table 1 for a summary of these data.

Discussion

Although the prevalence of endometrial polyps in the general female population has been estimated to be as high as 25%, the malignant potential of such polyps is still open to question [3]. It is likely that the different diagnostic criteria that are applied account for the discrepancies in the rate of carcinoma reported in endometrial polyps [4].

There are some limitations to our selection of cases. In defining malignant polyps as a malignancy on the surface or within an endometrial polyp, we may have included cases of polyps colonized by malignancy beginning elsewhere. In addition, there are an unknown number of

Table 1 Results of cases of endometrial malignant polyps diagnosed in the Ambulatory Hysteroscopy Unit during a 5-year period

Age	Risk factors	Metrorrhagia	Polyps Single/multiple	Size of polyps (cm)	Excision/biopsy	Histological diagnose	Tumoral stage
1 82	Hypertension, diabetes	No	Multiple	1,5	Excision	Adenocarcinoma with squamous areas, grade 3	T1bN0M0
2 55	None	Yes	Single	1,5	Biopsy	Adenocarcinoma with squamous areas, grade 3	T1bN0M0
3 68	Hypertension, diabetes, obesity, tamoxifen	Yes	Single	2,5	Excision	Clear cell carcinoma	T1aN0M0
4 67	Obesity	Yes	Single	3	Biopsy	Mixed serous papillary carcinoma/endometrioid, grade 3	T1aN0M0
5 69	Hypertension	Yes	Single	2	Biopsy	Mixed endometrioid carcinoma / clear cell (10%), grade 2	T1bN0M0
6 75	Hypertension, diabetes	Yes	Single	3	Biopsy	Carcinosarcoma, grade 3	T1bN0M0
7 62	None	Yes	Single	2,5	Biopsy	Carcinosarcoma, grade 3	T1cN0M0

tumors whose growth can completely destroy the original polyp [5].

In our setting asymptomatic women with abnormal sonograms are referred to an examination by hysteroscopy. The fact that in our Unit more than 50% of women with endometrial polyps are asymptomatic can explain our low frequency of malignant endometrial polyps (0.53%). Polyps greater than 1.5 cm in diameter have been reported to be significantly more prone to be associated with malignancy [4], which was also the case in our patients.

In accordance with previous studies, we also found a strong association of endometrial polyps with more aggressive subtypes of uterine carcinoma [5].

Conclusion

Endometrial polyps are rarely malignant. To achieve complete removal of the polyp or biopsies, operative hysteroscopy is the treatment of choice and should be offered to symptomatic patients or patients with risk factors for endometrial carcinoma. Risk factors associated with

malignant endometrial polyps are not different from those of other carcinomas, but the histological feature seems to point to more aggressive subtypes of cancers.

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