

Retrospective analysis of endometrial polyps carried out at Ege University Hospital

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Summary

Objective: The aim of the present study was to assess the incidence of endometrial polyps in women presenting with different symptoms to Ege University Hospital.

Material and Methods: Patient records were retrospectively scanned and patients with a histopathological diagnosis of endometrial polyps were included in the analysis.

Results: 53 patients had been diagnosed with endometrial polyps. Sixty-four percent of the patients were postmenopausal and the most common presenting symptom was postmenopausal vaginal bleeding (26.4%). Forty-nine percent of the diagnoses were made by endometrial sampling.

Conclusion: In a university hospital setting the majority of the endometrial polyp cases diagnosed were in postmenopausal women. Standard endometrial sampling failed to detect almost half of the cases.

Key words: Endometrial polyp; Postmenopausal bleeding.

Introduction

Endometrial polyps are benign lesions of the endometrium. These lesions are localized and are the overgrowth of endometrial tissue, both stroma and the glands. They project into the endometrial cavity and can be sessile or broad based. They can be single or multiple, and very small or large in size.

The prevalence of polyps is approximately 24% in the general population. They are common in women over 40 and almost unseen in premenarche. Polyps are mostly asymptomatic but may present with bleeding, either intermenstrually in young women or in postmenopause in older women. Polyps with a long stalk may protrude from the cervical canal and increase symptoms [1].

The aim of this retrospective analysis was to investigate the characteristics of patients with endometrial polyps in a given time period in a university hospital clinic.

Material and Methods

The patients who had a pathological diagnosis of endometrial polyps during the time period from January 2002 to June 2003 at Ege University Department of Obstetrics and Gynecology were included in the study. A total of 53 cases were diagnosed pathologically as having endometrial polyps. The medical records of the patients were evaluated retrospectively.

Of these 53 women, 19 patients were in premenopausal status (35.8%) and 34 were postmenopausal (64.2%). For the postmenopausal patients the mean duration of menopause was 4.08 ± 2.82 years.

Results

The presenting symptoms of the patients were grouped as follows: Postmenopausal vaginal bleeding, 14 patients (26.4%); endometrial thickening, 14 patients (26.4%); abnormal uterine bleeding, 12 patients (22.6%). Three patients were primary infertile women who underwent hysteroscopic evaluation and two were on tamoxifen. The rest ($n = 8$, 15.1%) had uterine fibroids, cervical polyps and other symptoms.

All the patients were evaluated with transvaginal sonography and endometrial thickness was assessed. Endometrial thickness in postmenopausal women was significantly thicker than in premenopausal women (9.3 ± 6.7 mm vs 6.5 ± 3.7 mm).

The histopathology of the polypoid lesions revealed "hyperplastic endometrial polyp" except for only one patient. This particular patient was found to have undifferentiated carcinoma of the uterine corpus on histopathological examination. Of the 53 specimens, ten of the endometrial polyps were associated with endometrial hyperplasia. Eight of these were simple hyperplasias without atypia and two were complex hyperplasias without atypia.

Of the 53 endometrial polyps, 49.1% ($n = 26$) were detected by endometrial sampling (dilatation and curettage), 34% ($n = 18$) by hysteroscopy and 17% ($n = 9$) by hysterectomy.

Discussion

Endometrial polyps are benign overgrowths of the endometrium. They are mostly found in women over 40. The population reviewed in this paper were mainly postmenopausal (mean age 53.25 ± 10.5 years). Endometrial

polyps mostly manifest themselves as menstrual irregularities in younger women or postmenopausal bleeding in older ones. Of the presenting symptoms in our group 26.4% were postmenopausal bleeding.

Histopathologically, endometrial polyps may contain both glandular and stromal elements of the endometrium. Hyperplasia, carcinoma and sarcoma may involve or be entirely confined to a polyp. In our population, ten cases of endometrial hyperplasia accompanied endometrial polyps. One patient, unfortunately, had carcinoma.

Polyps can be classified into three groups as hyperplastic, atrophic and functional. Hyperplastic polyps have irregular shaped glands mimicking endometrial hyperplasia. These hyperplastic polyps are probably due to a hormonal imbalance like endometrial hyperplasia. Of the polyps in our group 81.1% were hyperplastic. Atrophic polyps are generally found in postmenopausal women and may represent regressed hyperplastic polyps. Functional polyps are not very common and contain glands like normal endometrium. Our review did not reveal any atrophic or functional polyps.

Van den Bosch *et al.* [2] performed a study to evaluate the thickness and the sonographic features of the endometrium in postmenopausal women on hormone replacement therapy. Endometrial polyps were diagnosed by ultrasound in 16.3% of the patients; 43.6% were asymptomatic. In the nonpolyp group, a significant difference in endometrial thickness between sequential and continuous schemes was found. In sequential HRT, a three-layer ultrasound pattern of the endometrium was seen in 47% of the women in the estrogen-alone phase of the cycle versus 11% in the estrogen-progestogen phase. They concluded that In women on sequential HRT, a transvaginal sonographic evaluation performed in the estrogen-alone phase of the cycle may optimize the accuracy of focal lesion detection such as endometrial polyps.

To obtain a greater understanding of the pathogenesis of endometrial polyps and to gain insight into which factors play a pivotal role in their growth Taylor *et al.* [3] performed a retrospective analysis of archived paraffin-embedded specimens. Thirty secretory phase endometrial samples, ten secretory phase endometrial polyps, eight proliferative phase endometrial samples and ten proliferative phase endometrial polyps were studied. Immunohistochemistry was used to characterise the expression of estrogen and progesterone receptors, Bcl-2 and Ki67 in cycling endometrium and phase-matched endometrial polyps. Patterns of expression were compared between the polyps and endometrium regarding expression of estrogen receptors, progesterone receptors, Bcl-2 and Ki67. Three significant differences were found between the endometrium and the polyps. Polyps taken from the proliferative phase of the cycle displayed significantly

elevated expression of Bcl-2 and weak or no expression of progesterone receptors. Secretory phase polyps displayed an elevated expression of estrogen receptors. A localised increase in Bcl-2 expression and consequential decline or cessation of apoptosis is an important mechanism underlying the pathogenesis of endometrial polyps. Elevated Bcl-2 expression results in failure of the polyp tissue to undergo normal cyclical apoptosis during the late secretory phase. This may mean the polyp is not shed along with the rest of the endometrium during menstruation.

Perez-Medina *et al.* [4] evaluated the efficacy of color Doppler exploration after diagnostic hysteroscopy in choosing which endometrial polyps can be safely left in situ. Transvaginal ultrasonographic surveillance with color-Doppler mapping and hysteroscopic resection were performed on 220 women with hysteroscopically confirmed endometrial polyps. They removed 126 (57.2%) polyps because of positive color-Doppler mapping, and 29 (13.1%) with negative color-Doppler mapping because of symptoms. Sixty-five (29.5%) polyps were not removed because they did not cause symptoms and no Doppler mapping was found. At follow-up, six were removed because of hemorrhagic episodes. At three years, 59 patients with endometrial polyps remained asymptomatic by clinical and ultrasonographic follow-up. In their study 59 patients (26.8%) avoided surgical removal of polyps.

In conclusion, in a university hospital setting the majority of endometrial polyp cases were in postmenopausal women. Standard endometrial sampling failed to detect almost half of the cases.

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