ENDOMETRIAL POLYPS AND ABNORMAL UTERINE BLEEDING – AN INSTITUTIONAL EXPERIENCE

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ABSTRACT

BACKGROUND

Abnormal Uterine Bleeding (AUB) is one of the most common health problems encountered by women. It affects about 20% women of reproductive age, and accounts for almost two thirds of all hysterectomies. Abnormal uterine bleeding is frequently the presenting symptom of endometrial polyps.

The aim of this study was to determine the prevalence and characteristics of endometrial polyps in patients with abnormal uterine bleeding.

MATERIALS AND METHODS

Endometrial polyps diagnosed on ultrasonography presenting as abnormal uterine bleeding were included in the study. The age group was broadly divided into ≤ 40 years and ≥ 40 years. The histopathological features were recorded and analysed.

RESULTS

In the present study out of 2184 cases of abnormal uterine bleeding, 88 cases were endometrial polyps (4.02%). In the present study, the prevalence of endometrial polyps is 4.02%. The age prevalence was 72 (81.82%) in the age group ≤ 40 years and 16 (18.18%) in the age group beyond 40 years. 28.40% of endometrial polyps presented with postmenopausal bleeding, commonest histopathology being benign endometrial polyps followed by endometrial carcinoma. 71.59% of endometrial polyps presented with premenopausal bleeding commonest histopathology being submucosal leiomyoma followed by benign endometrial polyps and one case of endometrial polyp with atypical endometrial hyperplasia.

CONCLUSION

Ultrasonography is a useful tool to identify presence of endometrial polyps, but in postmenopausal women with abnormal uterine bleeding, histopathology is a must to rule out malignancy. Polyps with atypical hyperplasia and malignant degeneration of endometrial polyps were observed mainly in postmenopausal women.

KEYWORDS

Endometrial Polyps, Abnormal Uterine Bleeding, Histopathology.

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BACKGROUND

Endometrial polyps can affect up to 25% of women. Most common site is the posterior wall of the uterine cavity, followed by anterior, lateral and uterotubal junction. They can be single or multiple.^[1]

Endometrial polyps represent hyperplastic response of normal endometrial tissue to unopposed oestrogen. Patients with tamoxifen therapy are more prone to develop polyps. Late menopause, hormone replacement therapy and obesity increase risk of endometrial polyps.^[2] They may be asymptomatic or associated with abnormal uterine bleeding. Glands are generally unresponsive to progesterone stimulation. Cases associated with tamoxifen therapy for breast cancer may have severe atypia.

Risk of malignancy is 1-3 %. Serous adenocarcinoma, clear

cell adenocarcinoma or endometrial intraepithelial neoplasia can occur in these polyps.^[3] The risk of malignant endometrial polyp is highest in women with postmenopausal bleeding and in asymptomatic women with larger polyps and other known risk factors for endometrial cancer.

MATERIALS AND METHODS

This is a prospective study for a period of three years at tertiary care centre from January 2013 to January 2016 at Visakhapatnam. The number of cases of abnormal uterine bleeding attending OPD during this period was 2184. AUB was defined as menorrhagia, intermenstrual bleeding or postmenopausal bleeding within the preceding year. Postmenopausal bleeding was defined as bleeding in postmenopausal women without hormone therapy or unscheduled bleeding in women taking hormone therapy. Using transvaginal ultrasonography (TVS), the thickest part of the anteroposterior bilayer endometrial thickness was measured (in millimetres) in the sagittal plane. Endometrial polyps were diagnosed on ultrasonography in 88 cases which were included in the study. The pattern of bleeding was classified as premenopausal and postmenopausal bleeding. The age group was broadly divided into ≤ 40 years and ≥ 40 years. All the cases with endometrial polyps underwent hysterectomy. The histopathological sections were routinely

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processed and stained with Haematoxylin and Eosin. The histological features were recorded.

RESULTS

In the present study out of 2184 cases of abnormal uterine bleeding, 88 cases were endometrial polyps [4.02%]. The age prevalence was 72 [81.82%] in the age group ≤ 40 years and 16 [18.18%] in the age group ≥ 40 years. In the age group ≤ 40 years, 60 cases were submucosal leiomyomas and 12 cases were benign endometrial polyps and in the age group ≥ 40 years, 10 cases were submucosal leiomyoma and 6 cases were endometrial carcinoma [Table 1].

Age Distribution	Number of Cases	Percentage
≤ 40 Years	72	81.82 %
≥ 40 Years	16	18.18 %
Total	88	100 %

Table 1. Age Wise Distribution of Endometrial Polyps: 88

25 cases [28.40%] presented with postmenopausal bleeding, and 63 cases [71.59%] presented with premenopausal bleeding [Table 2].

Pattern of Bleeding	Number of Cases	Percentage
Post-Menopausal Bleeding	25	28.40 %
Premenopausal Bleeding	63	71.59 %
Menorrhagia	60	
Metrorrhagia	3	
Total	88	

Table 2: Patterns of Bleeding in Endometrial Polyps

On histopathology, 70 cases (79.54%) were submucosal leiomyomas, 11 cases [12.5%] were benign endometrial polyps, 6 cases [6.81%] of endometrial carcinomas and one case [1.13%] was endometrial polyp with atypical endometrial hyperplasia [Table 3].

Histopathology	Number of Cases	Percentage
Submucosal Leiomyoma	70	79.54%
Benign endometrial Polyp	11	12.5%
Endometrial Polyp with Atypical Hyperplasia	01	1.13%
Endometrial Carcinoma	06	6.81%
Total	88	100%

Table 3. Histopathological Patterns in Endometrial Polyps: [n=88]

On comparing the histological patterns with patterns of bleeding, 9 out of 11 cases of benign endometrial polyps and 5 cases out of 6 cases endometrial carcinoma presented with postmenopausal bleeding and 60 out of 70 cases of submucosal leiomyomas presented with premenopausal bleeding [Table 4].

Histopathology	Number of Cases	Patterns of Bleeding	
		Post-Menopausal	Pre-Menopausal
Submucosal Leiomyoma	70	10	60
Benign Endometrial Polyp	11	9	2
Endometrial Polyp with Atypical Hyperplasia	1	1	-
Endometrial Carcinoma	6	5	1
Total	88	25	63

Table 4. Comparing Histopathological Patterns with Bleeding Patterns in Endometrial Polyps-[n=88]

DISCUSSION

Endometrial polyps are a localised endometrial intrauterine overgrowth that may be single or multiple, may measure from a few millimetres to centimetres, and may be sessile or pedunculated and the size may vary from a few millimetres to 3-4 centimetres. Endometrial polyps consist of endometrial glands, stroma, and blood vessels. Risk factors for the development of endometrial polyps include age, hypertension, obesity, and tamoxifen use.^[3,4] Endometrial polyps may be asymptomatic, and when symptoms occur they most commonly include abnormal (including postmenopausal) uterine bleeding and less commonly infertility. Malignancy is uncommon and occurs in 0% to 12.9% of endometrial polyps, depending on the population studied.

Microscopically, endometrial polyps are typically a mixture of dense fibrous tissue (Stroma), large and thick-walled vascular channels, and glandular spaces of varying shapes and size, covered by a surface epithelium. Recent work describes the parallel arrangement of the endometrial gland's long axis to the surface epithelium as a histologic feature of endometrial polyps. This feature, found in 80% of premenopausal women, was significantly less common in postmenopausal women (42%) (p 5.001) and did not occur at all in any of the 56 normal control subjects, suggesting that, when present, this is an important additional histologic feature for diagnosis.

The reported prevalence of endometrial polyps varies widely and ranges from 7.8% to 34.9%, depending on the definition of a polyp, diagnostic method used, and the population studied. The prevalence of polyps appears to increase with age, and it is reported that more postmenopausal (11.8%) than premenopausal women (5.8%) are affected. The association with menopause may be a selection bias, given that postmenopausal women with any vaginal bleeding are more likely to be investigated.

The International Federation of Gynecology and Obstetrics working group on menstrual disorders has recently developed a classification system (PALM-COEIN) for causes of the AUB in non-gravid women of reproductive age.

There are nine 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 the proposed classification system,

non-specific term like dysfunctional uterine bleeding should be abandoned to favour a more specific aetiology like ovulatory dysfunction.

The prevalence of endometrial polyps in the studies by Dreisler E et al^[4] was 7.8% and Anastasiadis PG et al^[5] was 8.9%. In the present study, the prevalence is 4.02%.

Dreisler E et al^[4] in their study noted that in women below the age of 30 years the prevalence of polyps was 0.9%. Polyps were diagnosed in 5.8% of pre- and 11.8% of postmenopausal women. In the present study, 81.82% of endometrial polyps were seen in age group less than 40 years and 18.18% of cases beyond 40 years of age.

Dreisler E et al^[4] in their study out of 48 women with polyps, eight were submucosal myomas, one with endometrial cancer and two with complex hyperplasia without atypia. Anastasiadis PG et al^[5] noted that out of 126 endometrial polyps found 94 with benign polyps, 30 (23.8%) were found with premalignant changes (complex and atypical hyperplasias) and two (1.5%) had undergone malignant change. Biljana Dordevic^[6] in their study noted 82.94% were benign endometrial polyps, 2.37% were endometrial hyperplasia with atypical hyperplasia and 0.95% were endometrial carcinoma.

Costa -Paival et al^[7] noted that women were diagnosed with benign polyps in 95.8% of cases. Premalignant polyps accounted for 1.6% of the total number of cases. Malignant polyps represented 2.5% of the total sample. Postmenopausal bleeding and age greater than 60 years were the only factors that remained associated with a higher risk of malignancy.

Doraiswami Set al in their study^[8] noted benign endometrial polyp constituted (11.2%), endometrial hyperplasias (6.1%) and carcinomas (4.4%). Hileeto D et al^[9] analysed 513 endometrial polyps, in the age group >35, only 2.5% was associated with endometrial malignancy. The most common histologic type of malignancy was endometrioid adenocarcinoma. Kelly P et al^[10] noted three out of 27 endometrial polyps showed hyperplasia of endometrial polyps, occurred below 35 years of age and 18.18% occurred beyond 35 years.

In the present study out of 88 cases of endometrial polyps, 70 (Submucosal leiomyoma), 11 (Benign endometrial polyps), 1 case of endometrial polyp with atypical hyperplasia and 6 cases of endometrial carcinoma were diagnosed on histopathology. Out of 6 cases of endometrial carcinoma, 5 cases presented with postmenopausal bleeding.

CONCLUSION

Ultrasonography is a useful tool to identify presence of endometrial polyps but in postmenopausal women with abnormal uterine bleeding, histopathology is a must to rule out malignancy. Polyps with atypical hyperplasia and malignant degeneration of endometrial polyps were observed mainly in postmenopausal women.

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