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Age specific prevalence of endometrial hyperplasia in a tertiary care centre from south India

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Abstract

Introduction: Endometrial hyperplasia is a premalignant lesion for endometrial carcinoma accounting for 6% of new female cases and 3% of female cancer deaths.[1,2] Endometrial cancer is the third most common malignancy of the female genital tract.

Objectives: This study was carried out to find out the prevalence of each type of endometrial hyperplasia(simple, complex, atypical) in different age groups.

Materials and Methods: Age specific prevalence of different types of hyperplasia was noted in five groups viz, 21-30 years, 31-40 years, 41-50 years, 51-60 years and >60 years.

Results: Simple hyperplasia was common in 5th decade(24%). Complex hyperplasia was prevalent in 4th decade(5%). Increased prevalence of atypical hyperplasia was seen in 5th (11%) followed by 4th decade(10%).

Conclusion: Atypical hyperplasia which carries increased risk for malignancy is common in 5th decade. Age specific prevalence patterns will help us know magnitude of the problem so that strategies could be made for early prevention and intervention to prevent morbidity and mortality due to dysfunctional uterine bleeding.

Keywords: Abnormal uterine bleeding, Age specific, Distribution, Endometrial hyperplasia, Histopathology

Introduction

Endometrial hyperplasia is a premalignant lesion for endometrial carcinoma accounting for 6% of new female cases and 3% of female cancer deaths.[1,2] Endometrial cancer is the third most common malignancy of the female genital tract with age standardized incidence of rate of 2.9 per 100,000 women.[3,4] Three main types of endometrial hyperplasia as per WHO diagnostic criteria modified by Kurman[2,5] are: simple hyperplasia with low risk of progression to endometrial carcinoma(0.4%); complex hyperplasia with intermediate risk of progression(0 to 26.7%); and atypical hyperplasia, with greatest risk of endometrial carcinoma progression(22.6% to 88.9%).[2,3,5]

Objectives

This study was carried out to find out the prevalence of each type of endometrial hyperplasia (simple, complex, atypical) in different age groups.

Materials and Methods

The hematoxylin and eosin stained slides of one hundred patients between 2006 to 2012 were studied. The patients who presented with abnormal vaginal bleeding and were diagnosed as endometrial hyperplasia using WHO diagnostic criteria modified by Kurman[2,5] in 1985 and revised in 1994, were included in this study. The patients were not on hormonal therapy. The formalin fixed endometrial samples were routinely processed and 4-5µ thick sections were cut from paraffin blocks. The sections were stained by routine haematoxylin and eosin stains. Age specific prevalence of different types of hyperplasia was noted in five groups viz, 21-30 years, 31-40 years, 41-50 years, 51-60 years and >60 years.

Results

The age of patients ranged from 20- 83 years. Out of 100 cases of endometrial hyperplasia, 21-30 years age group showed only total of 6% of cases of simple (Fig. 1) and complex hyperplasia (Fig. 2). No atypical hyperplasia (Fig. 3) was seen in this age group. 31- 40 years age group showed 20%, 5% and 10% of simple, complex and atypical hyperplasia respectively. 41 -50 years age group showed 24%, 2% and 11% of simple, complex and atypical hyperplasia respectively. 51-60 and >60 years age group showed increased number of atypical hyperplasia (7% and 9% respectively) when compared to simple and complex hyperplasia in same age group. Simple hyperplasia was common in 5th decade(24%). Complex hyperplasia was prevalent in 4th decade(5%). Increased prevalence of atypical hyperplasia was seen in 5th (11%) followed by 4th decade(10%).(Table 1)

Table 1: Age specific distribution of hyperplasia

	21-30 yrs	31-40 yrs	41-50 yrs	51-60 yrs	>60 yrs	Total
Simple hyperplasia	4	20	24	2	1	51
Complex hyperplasia	2	5	2	2	1	12
Atypical hyperplasia	0	10	11	7	9	37
Total	6	35	37	11	11	100

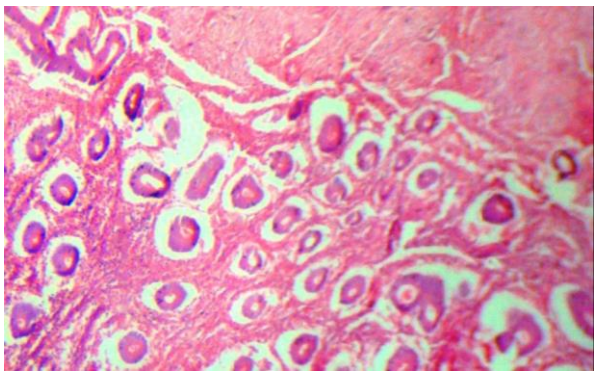

Fig. 1: Microphotograph of simple hyperplasia. (H&E, 10X)

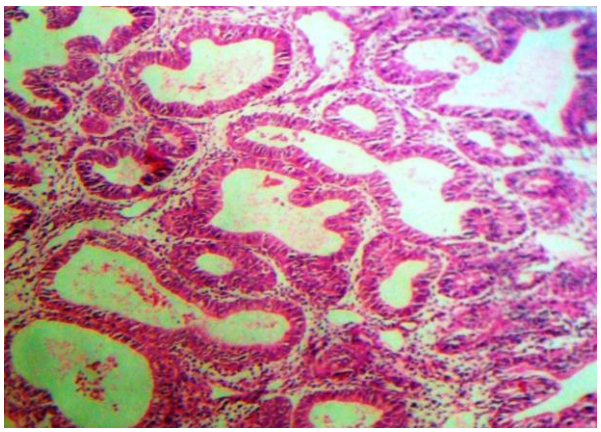

Fig. 2: Microphotograph of complex hyperplasia. (H&E, 40X)

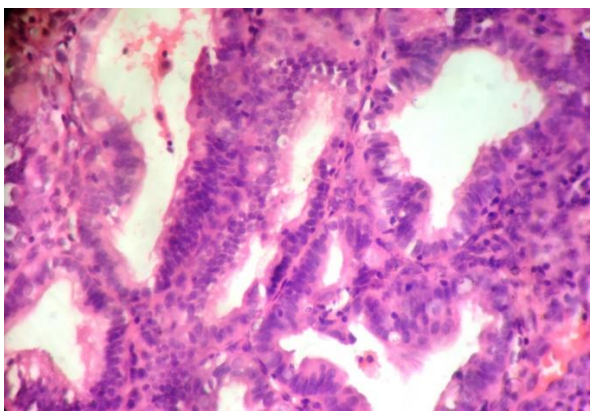

Fig. 3: Microphotograph of atypical hyperplasia. (H&E, 40X)

Discussion

Recamier in 1850 first recognized the condition of endometrial hyperplasia. Endometrial hyperplasia not only predisposes to endometrial carcinoma, but also causes mental and economic burden on the patients with its distressing clinical symptoms, menorrhagia and menometrorrhagia, emergency and outpatient consultations.[5] diagnostic evaluations, medical and surgical treatment.[5,8] Muzaffar et al[9,10] found that endometrial hyperplasia was one of the leading pathology in women suffering from abnormal uterine bleeding.[9]

Very little is known about the prevalence of endometrial hyperplasia as there are no routine screening procedures available for the detection of endometrial cancer or its antecedent lesions. Very few studies have performed routine endometrial biopsies on asymptomatic women due to the invasive nature of endometrial sampling.[5,11,12] Simple hyperplasia is characterized by minimal endometrial glandular crowding, complex hyperplasia by greater endometrial glandular crowding and atypical hyperplasia by complex glandular crowding and/or cytologic atypia.[2,5,13]

Our study showed high prevalence of atypical hyperplasia in 5th followed by 4th decade of life which is in comparison with studies done by Kayasta et al.[3] According to Reed et al 5 the incidences of simple and complex hyperplasia were highest in women ages 50–54 years. The incidence of atypical hyperplasia was highest in women ages 60–64 years. Overall, the incidence of any type of hyperplasia was highest in women ages 50–54 and was rare in women under age 30. This difference could be attributable to 5 year interval in division of age group in study by Reed et al.[5]

Several investigators have found beneficial effects from treating hyperplasia and carcinoma with progesterone. According to Kistner, patients with atypical hyperplasia and carcinoma in situ when treated with progesterone, lesions were reversible and none advanced.[9]

Conclusion

The severity of hyperplasia increases the risk of invasive carcinoma. Atypical hyperplasia which carries increased risk for malignancy is common in 5th decade. Age specific prevalence patterns will help us know

magnitude of the problem so that strategies could be made for early prevention and intervention to prevent morbidity and mortality due to dysfunctional uterine bleeding. Timely treatment can help us provide an environment for the lesion to regress and avoid radical surgeries.

References

1. Takreem A, Danish N, Razaq S. Incidence of endometrial hyperplasia in 100 cases presenting with polymenorrhagia/menorrhagia in perimenupausal women. J Ayub Med Coll Abbottabad 2009;21(2).
2. Kurman RJ, Kamiriski PF, Norris HJ. The behavior of endometrial hyperplasia; A long term study of untreated endometrial hyperplasia in 170 patients. Cancer 1985;56:403–12.
3. Kayastha S. Study of endometrial tissue in dysfunctional uterine bleeding. Nepal Med Coll J 2013;15(1):27-30.
4. Benjachai W. Corpus uteri. In: Deerasamee S. Martin N, Sontipong et al editors. Cancer in Thailand vol 11. 1992-1994. LYON : IARC. 1999;60-1.
5. Reed SD, Newton KM, Walter L, Clinton WL, Epplein M, Garcia R, Allison K. Incidence of endometrial hyperplasia. Am J Obstet Gynecol. 2009 June; 200(6):678.e1–678.e6.
6. Lindahl B, Wilen R. Spontaeneous endometrial hyperplasia. A prospective, 5 years follow up of 246 patients after ablasion only, including 380 patients followed up for 2 years. Anticancer Res 6. 1994;14:2141-6.
7. Wentz W B. Progestin therapy in endometrial hyperplasia. Gynaecol Oncol 1974;2:362-7.
8. Coulter A, Bradlow J, Agass M, Martin-Bates C, Tulloch A. Outcomes of referrals to gynaecology outpatient clinics for menstrual problems: an audit of general practice records. Br J Obstet Gynaecol 1991;98:789–96.
9. Gargi R, Anjali B, Dipnarayan S, Sarbeswar M, Sajeeb M, Pradip Kumar M. Endometrial Hyperplasia: A Clinicopathological Study in a Tertiary Care Hospital. The Journal of Obstetrics and Gynecology of India 2013 Nov–Dec;63(6):394–39.
10. Muzaffar M, Akhtar KA, Yasmin S, et al. Menstrual irregularities with excessive blood loss: a clinico-pathological correlation. J Pak Med Assoc 2005;55:486–9.
11. Gol K, Saracoglu F, Ekici A, Sahin I. Endometrial patterns and endocrinologic characteristics of asymptomatic menopausal women. Gynecol Endocrinol 2001;15:63–67.
12. Korhonen MO, Symons JP, Hyde BM, Rowan JP, Wilborn WH. Histologic classification and pathologic findings for endometrial biopsy specimens obtained from 2964 perimenopausal and postmenopausal women undergoing screening for continuous hormones as replacement therapy (CHART 2 Study). Am J Obstet Gynecol 1997;176:377–80.
13. Pecorelli S, Benedet JL, Creasman WT, Shepherd JH. FIGO staging of gynecologic cancer. 1994– 1997 FIGO Committee on Gynecologic Oncology. International Federation of Gynecology and Obstetrics. Int J Gynaecol Obstet 1999;65:243–49.
14. Kistner RW. Histological effects of progestins on hyperplasia and carcinoma in situ of the endometrium. Cancer 1959;12:1106–22.