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HISTOPATHOLOGICAL STUDY OF ENDOMETRIAL LESIONS IN PATIENTS IN A TERTIARY CARE HOSPITAL IN NORTH TELANGANA

Pathology

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ABSTRACT

Introduction: Abnormal uterine bleeding (AUB) is considered one of the most common and challenging problems presenting to the gynecologist. Histopathological examination of endometrial biopsy is gold standard diagnostic tool in evaluation of AUB. Our study is aimed at determining the spectrum of endometrial pathologies in different age group patients presenting with AUB at our hospital which caters largely to women living in rural area.

Materials & Methods : The present study is a retrospective and prospective study done for a period of one year in department of Pathology. All hysterectomy cases and endometrial biopsy cases were considered in the present study. Complete patient history, clinical and radiological findings were considered.

Results: A total of 100 cases were included in our study and out of them the most common lesion was proliferative phase constituting upto 33 cases followed by secretory phase.The most common age group was in between 31-40 years. The most common complaint was abnormal uterine bleeding.

Conclusion: Histopathological examination of endometrium is gold standard diagnostic tool in evaluation of AUB and there is an age specific association of endometrial lesions.

KEYWORDS

Abnormal uterine bleeding (AUB); dysfunctional uterine bleeding (DUB); Endometrial hyperplasia,Prolifeartive phase

INTRODUCTION

AUB is defined as a bleeding pattern that differs in frequency, duration and amount from a pattern observed during a normal menstrual cycle or after menopause[1]. It is considered one of the most common and challenging problems presenting to the gynecologist. It contributes to about one-third of all outpatients coming to gynaecolgy OPD. Heavy bleeding may affect a woman's health both medically and socially, causing problems such as iron deficiency in the developed world and of chronic illness in the developing world. AUB includes both dysfunctional uterine bleeding (DUB) and bleeding from structural causes like fibroids, polyps, pregnancy complications and endometrial carcinoma[2]. DUB is defined as AUB without a demonstrable organic cause[3]. In most instances DUB is due to the occurrence of an anovulatory cycle. It can be diagnosed after exclusion of structural, iatrogenic, medications, psychological and systemic disorders by various diagnostic techniques. Histopathological examination of endometrial biopsies is gold standard diagnostic tool in evaluation of AUB and a specific diagnosis helps to plan the therapy for successful, resourceful management of AUB, where hysterectomy is not the answer, it is the interplay of hormones[4].

MATERIALS & METHODS

The present study is a retrospective and prospective study done on patients presenting with AUB in Department of Pathology, Prathima Institute of Medical Sciences,Nagunur,Karimnagar,Telangana (India). Women presented with AUB in all age groups were included and Patients with bleeding due to leiomyomas, cervical pathology, pregnancy related complications, and hemostatic disorders were excluded from the study. Total number of cases studied was 100 cases by applying inclusion and exclusion criteria. Ethical clearance was taken by ethical committee for this study. Endometrial specimens were obtained by either endometrial curetting or hysterectomy and fixed in 10% formalin. The specimens were processed routinely and stained with Haematoxylin and Eosin (H&E) stain.

RESULTS

Out of total 100 cases the most common lesion observed in our study was Proliferative phase (33 cases) and the least common was endometrial carcinoma (3 cases).Other cases diagnosed were secretory phase, atrophic endometrium, simple hyperpalsia with and without atypia, complex hyperplasia with and without atypia and endometrial polyps.[Table 1]

The most common age group affected was in between 31-40 years and the least common was between 11-20 years.[Table 2]. The chief complaint in our study was abnormal uterine bleeding followed by pain abdomen and spotting.

Table 1: Showing Different types of endometrial lesions

Sl No	Type of lesion	No.of cases
1	Proliferative phase	33
2	Secretory phase	24
3	Atrophic endometrium	07
4	Simple hyperplasia without atypia	07
5	Simple hyperplasia with atypia	06
6	Complex hyperplasia without atypia	06
7	Complex hyperplasia with atypia	04
8	Endometrial polyps	10
9	Endometrial carcinoma	03
Total		100

Sl No	Age group	Number of cases
1	1-10	00
2	11-20	02
3	21-30	26
4	31-40	44
5	41-50	23
6	51-60	05
Total		100

Table 2: Showing different age groups

DISCUSSION

Endometrium is mirror of hormonal status in women. Histological variation can be seen in endometrium according to age of women, phase of menstrual cycle and any another specific pathology[10]. In normal cycles, menstrual shedding is followed by endometrial proliferation under estrogenic stimulation. During this phase, the endometrial glands grow and become tortuous[11]. The secretory activity in the second half of the menstrual cycle is characterized by endothelial proliferation, thickening of the wall and coiling, forming the spiral arterioles on the ninth postovulatory day. AUB is the most common & perplexing problem in women of all age groups.

Dysfunctional uterine bleeding may be defined as excessive bleeding occuring or between menstrual periods without a causative uterine lesion such as tumour, polyp, infection, hyperplasia, trauma, blood dyscrasia or pregnancy. But it occurs most commonly in association with anovulatory cycles when the ovarian function is wanning off. Endometrial hyperplasia is characterised by exaggerated proliferartion of glandular and stromal tissues. It is commonly associated with prolonged, profuse and irregular uterine bleeding in a menopausal or postmenopausal woman. It may be emphasised here that the syndrome

of DUB with which endometrial hyperplasia is commonly associated is a clinical entity, while hyperplasia is a pathologic term. Hyperplasia results from prolonged oestrogenic stimulation unopposed with any progestational activity. Such conditions include Stein-Leventhal syndrome, functioning granulosa-theca cell tumours, adrenocortical hyperfunction and prolonged administration of oestrogen. Endometrial hyperplasia is clinically significant due to the presence of cellular atypia which is closely linked to endometrial carcinoma.

'Uterine polyp' is clinical term used for a polypoid growth projecting into the uterine lumen and may be composed of benign lesions or malignant polypoid tumours. The most common variety, however is the one having the structure like that of endometrium and is termed endometrial or mucus polyp. They are more common in the perimenopausal age group. Small endometrial polyps generally remain asymptomatic and are detected incidentally. The larger ones may ulcerate,degenerate and result in clinical bleeding.

Carcinoma of the endometrium, commonly called uterine cancer, is the most comon pelvic malignancy in females in the United States and Eastern Europe but is uncommon in Asia where cervical cancer continues to be the leading cancer in women. Whereas the decline in the incidence of cervical cancer in the developed countries is due to aggressive cervical screening programmes leading to early detection and cure of in situ stage, increased frequency of endometrial carcinoma in these countries may be due to longevity of women's life to develop this cancer of older females. It is primarily a disease of postmenopausal women, the peak incidence at onset being 6^{th} to 7^{th} decades of life and is uncommon below the age of 40 years. The most important presenting complaint is abnormal bleeding in postmenopausal woman or excessive flow in the premenopausal years. Endometrial hyperplasia, an important cause of AUB, is defined as an increased proliferation of the endometrial glands relative to the stroma, resulting in an increased gland-to-stroma ratio. Endometrial hyperplasia deserves special attention because of its relationship with endometrial carcinoma. Endometrial Hyperplasia was classified according to World Health Organization (WHO), originally proposed by Kurman & Norris, into simple and complex on the basis of architecture and each was further subdivided into typical and atypical, based on cytology.

Only 1% of simple hyperplasia and 3% of complex hyperplasia without cytological atypia progresses to carcinoma where as 8% of simple hyperplasia and 29% of complex hyperplasia with cytological atypia do so. Hence reporting of endometrial hyperplasia into typical and atypical types has its prognostic and therapeutic implications with atypical type have increased incidence of progression to malignancy[7]. Complex hyperplasia with atypia has considerable morphologic overlap with well-differentiated endometrioid adenocarcinoma, and an accurate distinction between complex hyperplasia with atypia and cancer may not be possible. The mere presence of hyperplasia is not basis for hysterectomy. Most of cases of endometrial hyperplasia are treated by hormonal therapy and avoiding hysterectomy.

Histopathological examination of endometrial biopsies is gold standard diagnostic tool in evaluation of AUB and revealed various patterns ranging from normal endometrium to malignancy. Majority of the patients with AUB presented with normal cyclic endometrium, followed by endometrial hyperplasia and disordered proliferative endometrium. There was an age specific association of endometrial lesions. Normal cyclical proliferative endometrium was predominantly found in 31-40 years age group. Incidence of endometrial hyperplasia & endometrial polyp was high in 41-50 years of age group. The incidence of endometrial carcinoma was high after 50years of age group. These results clearly had shown that histopathological study is mandatory for all cases of AUB so as to rule out preneoplastic or malignant lesions. This simple study of endometrial curettage or biopsy can be of great help to gynecologists to plan therapy of a patient presented with AUB by close follow up of a patient who has precursor lesion or by timely surgical intervention in case of malignant lesions.

Figure legends:

Figure 1: Sections shoing glands in proliferative phase.[H&E,x40]

Figure 2: Sections showing glands with increased stratifications and dysplastic features- suggestive of Endometrial adenocarcinoma. [H&E,x40]

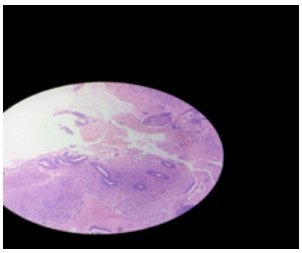

Figure 1

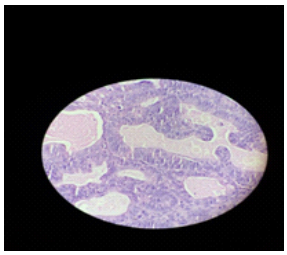

Figure 2

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