

ORIGINAL ARTICLE**Histopathological features of abnormal uterine bleeding**¹Nipun Sharma, ²Pallavi Sinha¹Assistant Professor, Department of Obstetrics & Gynaecology, Major S D Singh Medical College & Hospital, Farrukhabad, Uttar Pradesh, India;²Assistant Professor, Department of Pathology, Major S D Singh Medical College & Hospital, Farrukhabad, Uttar Pradesh, India**ABSTRACT:****Background:** This study was conducted to assess the histopathological features of abnormal uterine bleeding (AUB).**Material and methods:** A total of 100 patients diagnosed with AUB were enrolled. Complete demographic and clinical details of all the patients was obtained. Endometrial biopsy specimens were obtained. All specimens were transported in 10% formalin to the pathology laboratory. The gross morphology was recorded and the tissue bits were processed and paraffin blocks were prepared. Sectioning of the tissue sections was done and were stained with hematoxylin and eosin stain (H&E).**Results:** Normal cylindrical pattern was seen in 26 percent of the patients. Disordered proliferative pattern was seen in 22 percent of the patients. Hyperplasia and atrophic pattern were observed in 17 percent and 10 percent of the patients. Benign endometrial polyp and endometrial carcinoma was seen in 20 percent and 5 percent of the patients respectively. While correlating the age-wise distribution of patients with endometrial findings, non-significant results were obtained.**Conclusion:** Histopathological examination of endometrial biopsy is a major diagnostic tool in evaluation of AUB.**Keywords:** endometrium, hysterectomy, specimen, AUB, histopathology.**Corresponding author:** Pallavi Sinha, Assistant Professor, Department of Pathology, Major S D Singh Medical College & Hospital, Farrukhabad, Uttar Pradesh, India**This article may be cited as:** Sharma N, Sinha P. Histopathological features of abnormal uterine bleeding. J Adv Med Dent Scie Res 2014;2(4):255-257.**INTRODUCTION**

Abnormal uterine bleeding (AUB) is a significant clinical entity. AUB and its sub group, heavy menstrual bleeding (HMB), are common conditions affecting 14–25% of women of reproductive age^{1,2} and may have a significant impact on their physical, social, emotional and material quality of life.³ In the UK, over 800,000 women seek help for AUB annually. Along with the direct impact on the woman and her family, there are significant costs to both economy and health service. A US study reported financial losses of >\$2000 per patient per annum due to work absence and home management costs.⁴ AUB is the fourth most common reason for referral to UK gynaecological services.⁵

A recent national audit in England and Wales (RCOG HMB audit) reported that at 1-year post referral, only a third of women (including those managed with surgery) were 'satisfied' (or better) at the prospect of current menstrual symptoms continuing, as currently experienced, for the next 5 years.⁶ AUB usually peaks in the 4th-5th decade as the physiologic phenomenon of menopausal transition takes place.⁷ Anovulatory cycles in women approaching menopause begin with the loss of ovarian follicular activity and manifest as menstrual irregularities.⁸ Hence, this study was conducted to evaluate Histopathological features of abnormal uterine bleeding.

MATERIAL AND METHODS

The present study was undertaken for evaluating histopathological features of abnormal uterine bleeding. A total of 100 patients diagnosed with AUB were enrolled. Complete demographic and clinical details of all the patients was obtained. Endometrial biopsy specimens were obtained. All specimens were transported in 10% formalin to the pathology laboratory. The gross morphology was recorded and the tissue bits were processed and paraffin blocks were prepared. Sectioning of the tissue sections was done and were stained with hematoxylin and eosin stain (H&E). Microscopic examination of the specimens was done followed by analysis using SPSS software.

RESULTS

A total of 100 specimens were enrolled. Mean age of the subjects was 40.9 years. Normal cylindrical pattern was seen in 26 percent of the patients. Disordered proliferative pattern was seen in 22 percent of the patients. Hyperplasia and atrophic pattern were observed in 17 percent and 10 percent of the patients. Benign endometrial polyp and endometrial carcinoma was seen in 20 percent and 5 percent of the patients respectively. While correlating the age-wise distribution of patients with endometrial findings, non-significant results were obtained.

Table 1: Distribution of patients according to endometrial findings

Endometrial lesions	Number	Percentage
Normal cylindrical pattern	26	26
Disordered proliferative pattern	22	22
Hyperplasia	17	17
Atrophic pattern	10	10
Benign endometrial poly	20	20
Endometrial carcinoma	5	5
Total	100	100

Table 2: Correlation of age-wise distribution with endometrial findings

Endometrial lesions	Less than 35 years	More than or equal to 35 years	Total
Normal cylindrical pattern	14	12	26
Disordered proliferative pattern	10	12	22
Hyperplasia	8	9	17
Atrophic pattern	4	6	10
Benign endometrial poly	10	10	20
Endometrial carcinoma	2	3	5
Total	48	52	100
p-value	0.2125		

DISCUSSION

Excessive uterine bleeding is one of the most common complaints encountered in clinical practice. The social and economic cost of menorrhagia is considerable. Over the years menorrhagia has become a frequent complaint possibly due to easy accessibility to health services.⁹ DUB is defined as abnormal bleeding from the uterus, unassociated with tumor, inflammation and pregnancy. The term DUB applied to any abnormal bleeding including disturbances of the menstrual cycle, regular/irregular uterine bleeding and alteration in the amount or duration of menstrual blood loss, but most commonly implies excessive regular menstrual bleeding or essential menorrhagia. Management of DUB is not complete without tissue diagnosis especially in perimenopause and post menopause.¹⁰

To rule out an endocrine etiology, thyroid function test, follicle stimulating hormone (FSH), luteinizing hormone (LH), prolactin levels are assessed. On ruling out these causes, gynaecologists turn to imaging studies such as pelvic ultrasound (USG), and transvaginal USG and tissue sampling. Dilatation and curettage can be a diagnostic as well as therapeutic procedure.¹¹ The sensitivity of endometrial biopsy for the detection of endometrial abnormalities has been reported to be as high as 96%.¹² Hence, this study was conducted to evaluate Histopathological features of abnormal uterine bleeding.

A total of 100 specimens were enrolled. Mean age of the subjects was 40.9 years. Normal cylindrical pattern was seen in 26 percent of the patients. Disordered proliferative pattern was seen in 22 percent of the patients. Hyperplasia and atrophic pattern were observed in 17 percent and 10 percent of the patients. Benign endometrial polyp and endometrial carcinoma was seen in 20 percent and 5 percent of the patients respectively. While correlating the age-wise distribution of patients with endometrial

findings, non-significant results were obtained. The aim of the study conducted by Soleymani E et al¹³ was to assess the frequency of different histopathological findings obtained from dilatation and curettage (D&C) specimens in patients with abnormal uterine bleeding (AUB). In a retrospective review of 591 specimens, the included subjects were all women with AUB who underwent D&C between 2002 and 2006 in Be'sat Hospital, Tehran, Iran. The pathological diagnoses were analyzed in four groups from normal to malignant endometrium. The pathological groups were evaluated for patients' characteristics including demographic data and medical history. The majority of patients (61.6%) were in the 41-50 year age group. Totally, 81.4% of patients had normal pathology. The disordered proliferative endometrium/polyps, hyperplasia, and malignant pathology were found in 15.4, 2.5, and 0.7% of specimens, respectively. The abnormal pathologies were seen more among patients with postmenopausal status, nulli-/primigravid women, and those with hypertension, diabetes, hypothyroidism, and polycystic ovary syndrome. The proliferative endometrium and secretory endometrium were the most common histopathological observations in AUB patients in our region, and except normal endometrium, disordered proliferative endometrium was the most common cause of AUB.

The study conducted by Khan R et al¹⁴ was undertaken with the aim of evaluating DUB in various age groups, carry out histopathological study of the endometrium and analyze its clinic-pathological patterns. The study included 500 cases of atypical uterine bleeding, out of which 120 cases of DUB were included based on clinical features and detailed investigations. 04 Endometrial tissue was collected by D&C procedure and the samples were sent for histopathological evaluation by pathologist.

Hyperplasia was the commonest endometrial pathology (20.5%) followed by luteal phase insufficiency (15.6%) and secretory endometrium (13.7%). Endometritis including tubercular endometritis (12.7%), post abortal (5.8%), proliferative (6.8%), polyp (3.9%), atrophic (3.9%), exogenous hormone changes (2.9%) and anovulatory cycles (6.8%) made up for the remaining lesions. DUB occurs secondary to a wide variety of functional and structural abnormalities, warranting a thorough evaluation especially in perimenopausal females. Menorrhagia is a common symptom and the most likely etiology relates to the patient's age. Significant number of endometrial samples revealed pathology rendering endometrial curetting and biopsy an important procedure. Cervical cytology is a valuable adjunct however histopathology remains the gold standard in diagnosis.

CONCLUSION

Histopathological examination of endometrial biopsy is a major diagnostic tool in evaluation of AUB.

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