

Original research article

**A CLINICO-HISTOPATHOLOGICAL STUDY ON
ENDOMETRIAL ABNORMALITIES IN PATIENTS WITH
DYSFUNCTIONAL UTERINE BLEEDING**

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Abstract

Background: Dysfunctional uterine bleeding is the most commonly encountered condition in Gynaecology OPD. This study was done to identify the histo-pathological findings of endometrial curettages in patients with DUB

Materials and Methods: A total of 200 endometrial curettage samples were studied from March 2021 to Feb 2023, in the Department of Pathology, Andhra Medical College, Visakhapatnam

Results: Women in 31-40 years of age group were more common. DUB was more common in multiparous women. Cystoglandular hyperplastic type of endometrium was the most common histo-pathological finding in present study.

Conclusion: Histo-pathological examination is a major diagnostic tool in guiding the physician to plan appropriate therapy.

Keywords: Dysfunctional uterine bleeding, histo-pathological examination, endometrial curettage

Introduction

Abnormal uterine bleeding (AUB) is a common reason for women of all ages to consult their gynecologist. It includes both organic and non-organic causes of uterine bleeding. Endometrial biopsy or curettage is an important diagnostic and therapeutic modality in diagnosis of patients with DUB. This study was done to evaluate the endometrial causes of AUB and to determine the specific pathology in different age groups.

Abnormal Uterine Bleeding (AUB) is one of the most commonly encountered gynecological problems in women throughout the world. It impacts the quality of life by causing problems like anemia, abdominal discomfort and social isolation during menstruation thereby leading to loss in productivity. Based on the cause, AUB is classified by a new system known by the acronym PALM-COEIN (Polyp, Adenomyosis, Leiomyoma Malignancy and Hyperplasia, Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic, Not yet classified) which was introduced by the

International Federation of Gynecology and Obstetrics (FIGO) in 2011^[1-4]. Abnormal Uterine Bleeding-Endometrial causes (AUB-E) was previously been described extensively under Dysfunctional Uterine Bleeding (DUB).

Various methods are available to evaluate the cause of abnormal uterine bleeding. Endometrial biopsy or curettage is an effective diagnostic procedure in evaluation of abnormal uterine bleeding. This study was done with aim to study the histo-pathological features of endometrium in dysfunctional uterine bleeding.

Materials and Methods

This prospective observational study was conducted in the Department of Pathology, Andhra Medical College, Vishakapatnam, from March 2021 to Feb 2023. All patients attending Gynaecology OPD with dysfunctional uterine bleeding who underwent endometrial curettage were included. A total of 200 curettages were done during the study period.

Patients aged < 20 years, patients with HIV, Hepatitis B, Hepatitis C, patients with systemic disease and Coagulopathy, patients with IUCD or on hormonal treatments were excluded from the study.

A detailed history focusing on the menstrual history was taken. General and systemic examination was done in all patients who were included in the study. Routine baseline investigations like CBP, renal function tests, liver function tests, blood sugar estimation, blood grouping and typing were done. Radiological investigations like ultrasound of abdomen and pelvis was done.

Dilatation and curettage was done in all patients and the curettage material was sent for histo-pathological examination.

The endometrial curettings were collected and stored in 10% neutral buffered formalin solution and were allowed to fix for 24 hours. The specimens were processed thereafter and paraffin blocks were prepared. From the blocks, sections were obtained and subjected to H&E staining and special stains namely Periodic Acid Schiff, Vangieson's and reticulin stains were performed to evaluate secretory activity and for demonstration of collagen and reticulin fibers.

Results

A total of 200 endometrial samples from patients with dysfunctional uterine bleeding were studied and recorded.

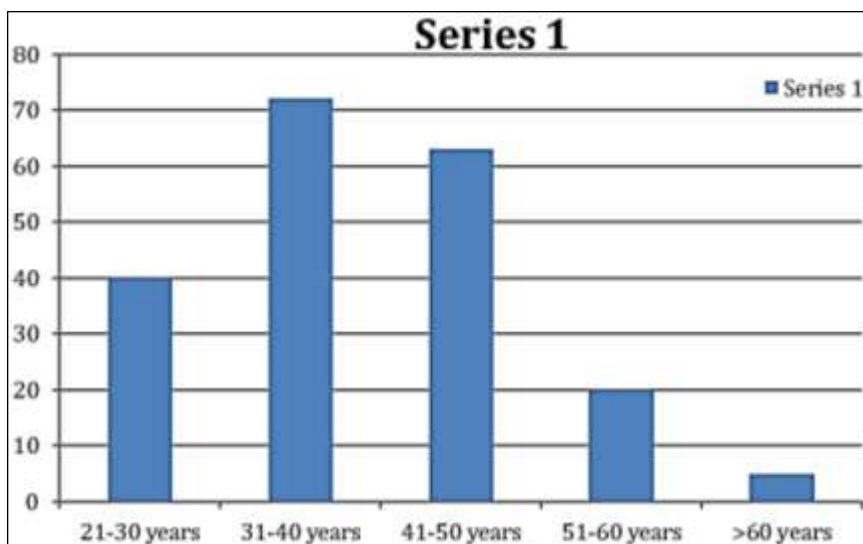


Fig 1: Age wise distribution

36% of the patients were aged between 31-40 years; followed by 41-50 years (31.5%). The youngest was 21 years old and the oldest is 69 years old. Mean age of study population was 37.5 years.

Multiparous women were more common in present study.

Table 1: Distribution of Parity

Parity	No. of cases	Percentage
Nulliparous	8	4%
Multiparous	144	72%
Grand multiparous	48	24%

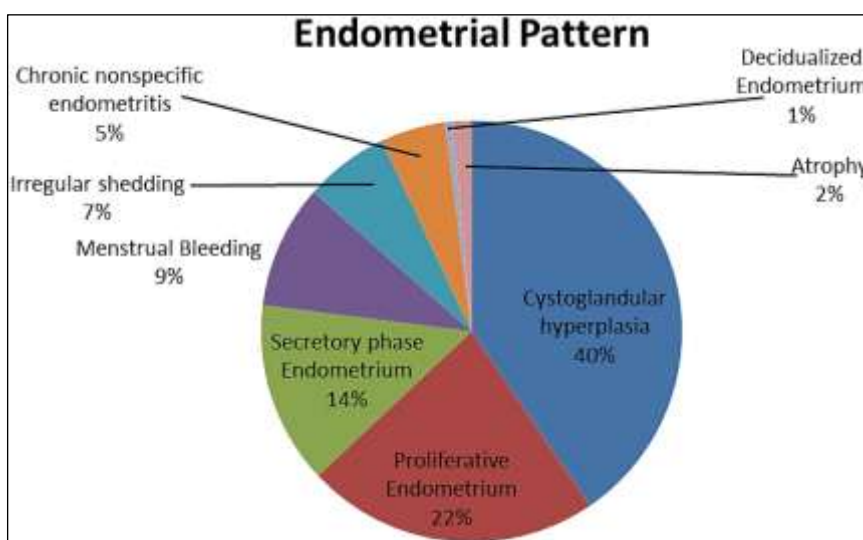


Fig 2: Type of Bleeding

Menorrhagia was the most common type of abnormal bleeding seen in 50% (n=100) of the study population, followed by metrorrhagia (16%).

60% of the patients were anemic (Hb <10 g/dl). 20 patients had hemoglobin <7 g/dl and 2 patients had hemoglobin <5g/dl.

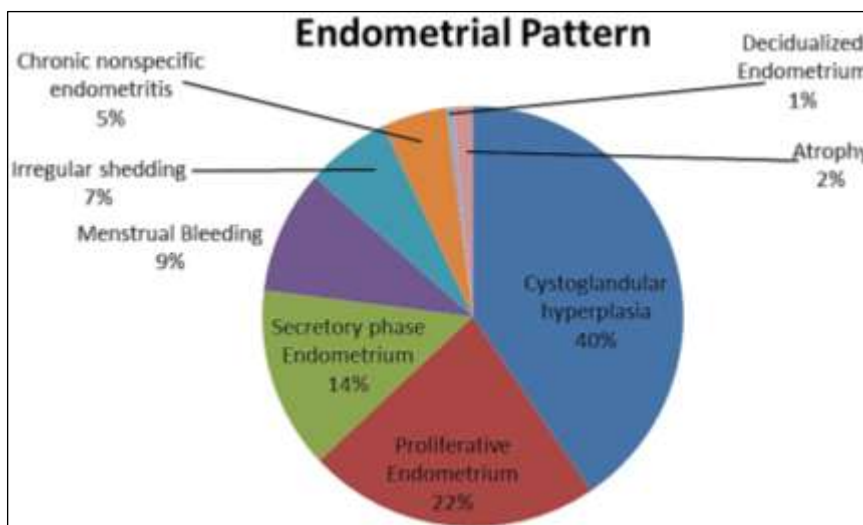


Fig 3: Endometrial Pattern

40.5% of the study patients had cystoglandular hyperplasia of the endometrium which is the most common finding in present study. This was followed by proliferative type of endometrium (22.5%) and secretory phase endometrium (14%). 3 patients had endometrial atrophy, who were above 60 years of age.

Discussion

The organic and functional causes of AUB have been classified. Absence of any organic cause for AUB, assumes a diagnosis of DUB. It may present at any age between puberty and menopause and it may occur with any type of endometrium.

In present study, majority of the patients belonged to 31-40 years of age (36%). This is supported by studies done by Sutherland *et al.* [5] (34.3%), Anasuya *et al.* [6] (28.2%), Bhattacharji *et al.* [7] (34.2%). However, in studies done by Mehrotra *et al.* [8] and Wagh *et al.* [9] majority of the study population belonged to 21-30 years of age (48% and 39% respectively).

Most of the study population consisted of multiparous women. This was supported by study done by Sadia Khan *et al.* [10].

Table 2: Comparison of parity

Parity	Present study	Sadia Khan <i>et al.</i> [10]
Nulliparous	4%	5.4%
Multiparous	72%	54%
Grand multiparous	24%	35.6%

Heavy menstrual bleeding was most commonly seen in present study. This is supported by other studies as well.

Table 3: Type of Bleeding

Type of bleeding	No. of Cases	Percentage	Mehrotra <i>et al.</i> ^[8]	Radhika <i>et al.</i> ^[11]
Menorrhagia	100	50%	52%	64%
Polymenorrhea	22	11%	26%	28%
Metrorrhagia	32	16%	29%	18%
Menometrorrhagia	10	5%	0%	8%
Oligomenorrhagia	4	2%	0%	0%

In the present study, cystoglandular hyperplastic type of endometrium was the most common finding, followed by proliferative type. The incidence of proliferative endometrium correlated with other studies.

Table 4: Comparative incidence of Histo-pathological findings in various studies

	Proliferative	Secretory	Irregular shedding	Hyperplastic Endometrium	Atrophic Endometrium
Anasuya <i>et al.</i> [6]	41.50%	22.50%	1.08%	30.60%	1.08%
Narula <i>et al.</i> [12]	37.72%	35.92%	--	20.91%	5.45%
Present Series	22.5%	14%	6.5%	40.5%	1.5%

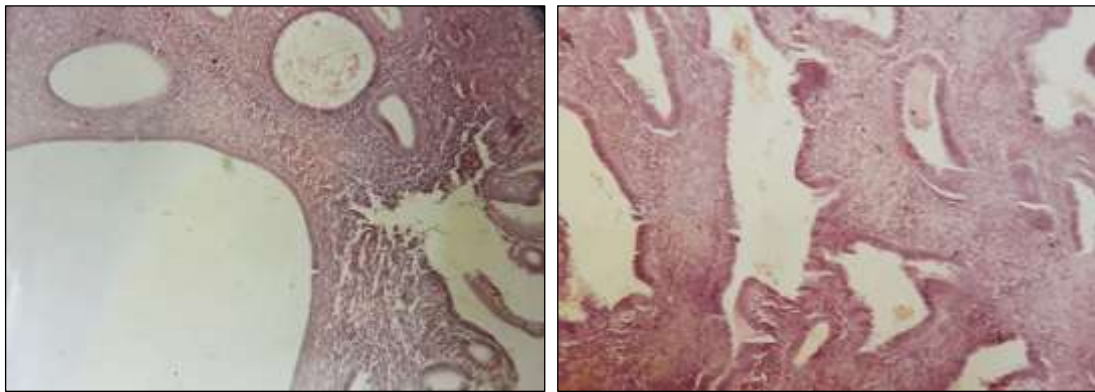


Fig 3: Mild Cystoglandular Hyperplasia **Fig 4:** Adenomatous Hyperplasia without atypia

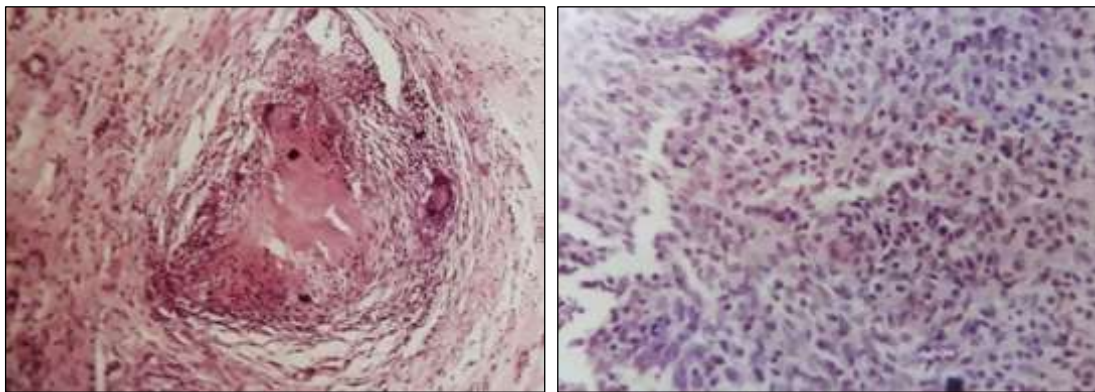


Fig 5: Tubercle endometritis

Fig 6: Chronic non-specific endometritis

Conclusion

Endometrial curettage in patient with dysfunctional uterine bleeding will aid in identification of the exact pathology and can guide in appropriate therapy.

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Conflict of Interest: Nil.

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