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Original Research Article.

A Hospital Based Prospective Study to Evaluate the Sociodemographic Profile of Identified Endometrial Histopathological Causes of Abnormal Uterine Bleeding

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ABSTRACT

Background: Abnormal uterine bleeding is one of the commonest conditions for which patients seek advice in the gynaecological outpatient department. The endometrial biopsy is chosen to evaluate abnormal uterine bleeding because it has several advantages over other diagnostic methods. The aim of this study evaluated the sociodemographic profile of identified endometrial histopathological causes of abnormal uterine bleeding.

Materials & Methods: A hospital based descriptive type of observational study done on 100 patients attending Gynecology OPD in S. P. Medical College, Bikaner, Rajasthan. Endometrial curettage samples were fixed in 10% formalin and histopathological slides were prepared sand Hematoxyline and Eosin staining was done.

Results: Our study showed that the maximum incidence of AUB was in the 31-40 years age group. The minimum incidence of AUB was in 17-20 years age group. Highest incidence of proliferative endometrium was 41%, followed by secretary phage (32%) and unsatisfactory (9%). The most common bleeding pattern encountered in AUB was menorrhagia. 49% patients presented with menorrhagia, followed by Metrorrhagia which was seen in 26% of cases. In 100 cases, 70% patients from Above Poverty Line (APL) and 30% from Below Poverty Line (BPL) presented with AUB.

Conclusion: We concluded that dilatation and curettage is useful for diagnosis, to assess therapeutic response and to know the pathological incidence of organic lesions in cases of abnormal uterine bleeding prior to surgery.

Keywords: AUB, Endometrial, Curettage, Dilation, Histopathology.

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INTRODUCTION

Abnormal uterine bleeding is one of the commonest conditions for which patients seek advice in the gynaecological outpatient department. It is estimated that 9-30% of women of reproductive age suffer from menorrhagia. The prevalence increases with age, peaking just prior to menopause.[1]

The endometrial biopsy is chosen to evaluate abnormal uterine bleeding because it has several advantages over other diagnostic methods. The hormonal assay is very expensive and laboratories with hormonal assay are not available in rural areas. [1]

Ultrasonography as a diagnostic tool has limited value in abnormal uterine bleeding, except in atrophy and hyperplasia. Other investigations like hysteroscopy and hysterosalpingography are mainly helpful in diagnosing organic pathology.[2]

Endometrial curettage is relatively inexpensive and accurate as an office procedure. Hormonal assay must be correlated with the histomorphological studies of endometrium. The only disadvantage of endometrial biopsy is that, it is an invasive procedure.[2] Davey D.A. in 1995[3] defined AUB as an abnormal bleeding from the uterus in the absence of organic disease of the genital tract. AUB is not one condition with one etiology, but is a group of disorders characterized by dysfunction of uterus, ovary, pituitary, hypothalamus or other part of the reproductive system, which results in abnormal or excessive uterine bleeding. The aim of this study evaluated the sociodemographic profile of identified endometrial histopathological causes of abnormal uterine bleeding.

MATERIALS & METHODS

A hospital based descriptive type of observational study done on 100 patients attending Gynecology OPD in S. P. Medical College, Bikaner, Rajasthan.

Criteria for Selection of Cases: all abnormal uterine bleeding cases of age above menarche attending the outdoor of gynecology department.

Criteria for Exclusion of Cases: Abnormal uterine bleeding cases suffering from leiomyoma, cervical & vaginal causes and Hemostatic disorders.

Methods: Endometrial curettage samples were fixed in 10% formalin and histopathological slides were prepared sand Hematoxyline and Eosin staining was done.

Histopathological examination

(A) Fixation: The fresh specimens of biopsy were fixed in 10% formalin solution immediately for 24 hours.

(B) Processing of tissue: The tissue was subjected to the following procedure for paraffin embedding

1 Dehydration
2 Clearing
3 Impregnation
4 Embedding

Dehydration: Tissue was taken out from 10% formalin and was kept in acetone to three hourly in three increasing strength i.e.- 80% followed by 100%

Clearing: Tissue was transferred to two changes of xylene, then transferred to chloroform overnight.

Impregnation: Tissue was transferred in the molten wax and kept overnight.

Paraffin Embedding: The embedding was done in pure paraffin and molded in a square block.

Cutting-Section were cut at 5-micron s thickness with rotary microtome.

Mounting –Section were then mounted on albuminized glass slides.

Staining of histopathology specimen

Paraffin section were kept into water after the following procedure

1. Section put in, at a temperature of 54ºC to 56ºC to melt the wax.
2. Then the slides were kept in a jar of xylene for 5 minutes.
3. Again slide was kept in a jar of xylene for 5 minutes.
4. Then section was transferred to descending serials of alcohol.
5. The section was transferred to 50% alcohol.
6. Finally, were washed in running water for 2-5 minutes
7. Section were stained in Meyer's haematoxylin solution for 15 minutes.
8. Slides were rinsed in water and slides were passed through gentle steam of running tap water for 20 minutes.
9. Counter stain with 1% solution of eosin for 2 minutes.
10. Rinsed and dehydrate in 95% and absolute alcohol,2 changes for 2 minutes each.
11. Clear in xylene, 2 changes for 2 minutes each.
12. Mount in DPX.

Table 1: Types of Endometrial Pattern in Our Study

Type of Endometrium	No. of cases	Percentage
Proliferative phase	41	41
Secretory phase	32	32
Cystoglandular Hyperplasia	1	1.0
Simple Hyperplasia	8	8.0
Endometritis	1	1.0
Mixed phase	1	1.0
Menstrual phase	7	7
Unsatisfactory	9	9
Total	100	100

Table 2: Correlative Study of Bleeding Pattern in Relation to Endometrial Pattern In 100 AUB Cases

Type of Endometrium	Menorrhaga (N=49)	Metrorrhagia (N=26)	Polymenorrhagia (N=3)	Post menopousal bleeding (N=1)	Menometrorrhagia (N=21)
	No. of cases (%)	No. of cases (%)	No. of cases (%)	No. of cases (%)	No. of cases (%)
Proliferative Endometrium	20 (40.8%)	15 (57.69%)	2 (66.7%)	1 (100%)	9 (42.85%)
Secretory Endometrium	19 (38.77%)	6 (23.07%)	1 (33.3%)	0 (0%)	7 (33.3%)
Simple Hyperplasia	5 (10.20%)	1 (3.84%)	0 (0%)	0 (0%)	1 (4.76%)
Menstrual phase	3 (6.12%)	2 (7.69%)	0 (0%)	0 (0%)	3 (14.28%)
Unsatisfactory	2 (4.08%)	2 (7.69%)	0 (0%)	0 (0%)	1 (4.76)

Table 3: Distribution of Cases in Social Status

Social status of patient	No. of cases	Percentage
Above Poverty Line (APL)	70	70%
Below Poverty Line (BPL)	30	30%
Total	100	100%

RESULTS

Our study showed that the maximum incidence of AUB was in the 31-40 years age group. The minimum incidence of AUB was in 17-20 years age group. Highest incidence of proliferative endometrium was 41%, followed by secretary phage (32%) and unsatisfactory (9%) (table 1).

The most common bleeding pattern encountered in AUB was menorrhagia. 49% patients presented with menorrhagia, followed by Metrorrhagia which was seen in 26% of cases (table 2). In 100 cases,70% patients from Above Poverty Line (APL) and 30% from Below Poverty Line (BPL) presented with AUB (table 3).

DISCUSSION

Abnormal uterine bleeding continues to be one of the most frequently encountered and perplexing problems in Gynaecological practice. It may present at any age between puberty and menopause and it may occur with any type of endometrium. The age of the patient with A.U.B. has been taken as a criterion for study in attempt to establish incidence of A.U.B. in various age groups. Earlier it was believed that dysfunctional uterine bleeding occurs more frequently at either ends of the childbearing period. But subsequently various workers came out with results which showed different age group distribution of A.U.B. Various foreign workers such as Sutherland (1950)[4], Naheed (1997)[5], Ayesha (2005)[6], Sadia khan (2011)[7], Vaidya 2013[8] and Vijay kumar (2014)[9] have reported highest incidence in age group of 41-50 years. Similarly, Anusuya Das (1964)[10], reported the maximum incidence of 36.2% in the 5th decade.

In the present study incidence of menorrhagia was 49% metrorrhagia was 26% polymenorrhagia was 3%, menometrorragia was 21% and post-menopausal bleeding was 1%.

In Naheed Moghal series[5] the incidence of menorrhagia was 40.83%, metrorrhagia was 48.04%, menometrorrhagia was 2.84%, polymenorrhoea 1.74%, and postmenopausal bleeding was 6.55%.

Sadia khan (2011)[7], Rajesh (2013)[11] and Vijay bodal (2014)[9] reported menorrhagia 57.8%, 73.16%, 47.72% respectively which was highest incidence. In the present study the highest incidence of menorrhagia 49% was seen.

Various types of endometrial hyperplasias were noticed. The most common type was simple hyperplasia. The incidence of endometrial hyperplasia in the present study was 9% which is agreeable with those of Schroeder (6.6%)[12], Sutherland (15.5%)[4] and Abid M (5%)[13].

CONCLUSION

We concluded that dilatation and curettage is useful for diagnosis, to assess therapeutic response and to know the pathological incidence of organic lesions in cases of abnormal uterine bleeding prior to surgery.

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