



Incidence of AUB as a Reason of Hysterectomy: A One Year Study

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ABSTRACT

Background: *Abnormal uterine bleeding (AUB) is a common and debilitating condition with high direct and indirect costs. Objectives of this study are –To study incidence of AUB in all cases of elective hysterectomy & to study the various etiological factors for hysterectomy & distribution of these factors according to age.*

Methods- *All patients undergoing hysterectomy at Government Medical College, Kota were studied over a period of one year retrospectively in order to find out incidence of AUB as a cause of hysterectomy. Data including age and clinical indication for hysterectomy was collected for the study.*

Keywords: *AUB, Hysterectomy, DUB, Fibroid, Adenomyosis.*

INTRODUCTION

Menstrual disorders are a common indication for medical visits among women of reproductive age & heavy menstrual bleeding affects upto 30% of women throughout their reproductive lifetime^{1,2}.

These complaints may significantly affect quality of life, result in time off work, lead to surgical intervention including hysterectomy, & ultimately have a significant impact on health care system³⁻⁶. Abnormal uterine bleeding is one of the most frequently encountered and perplexing condition in adult women⁷.

AUB may be defined as any variation from the normal menstrual cycle, & includes changes in regularity & frequency of menses, in duration of flow ,or in amount of blood loss⁸. With regard to volume, however, both the Royal College of Obstetricians and Gynaecologists (RCOG) and American College of Obstetricians and Gynecologists (ACOG) prefer the patient-centred definition of Heavy Menstrual Bleeding (HMB),

‘excessive menstrual blood loss which interferes with a woman's physical, social, emotional and/or material quality of life’⁹, as an indication for investigation and treatment options. The causes of abnormal uterine bleeding vary by age with anovulatory bleeding common in adolescent & perimenopausal females

A structured approach for establishing the cause using the Federation International de Gynecologie et d'Obstetrique (FIGO) PALM-COEIN (Polyp, Adenomyosis, Leiomyoma, Malignancy (and hyperplasia), Coagulopathy, Ovulatory disorders, Endometrial, Iatrogenic and Not otherwise classified) classification system will facilitate accurate diagnosis and inform treatment options. The treatment for AUB includes both medical therapies and surgical procedures¹⁰.

The *indications for surgery* for women with AUB includes-

- Failure to respond to medical therapy

- Inability to utilise medical therapy(side effects, contraindications)
- Significant anemia
- Impact on quality of life
- Concomitant uterine pathology(large uterine fibroid, endometrial hyperplasia)

Surgical options include

- Dilation & curettage
- Hysteroscopic polpectomy
- Endometrial ablation
- Myomectomy
- Hysterectomy

P Polyp
A B

A Adenomyosis
C D

L Leiomyoma
E

M Malignancy
F G

C Coagulopathy
H

O Ovulatory
I

E Endometrial
J

I Iatrogenic
K

N Not otherwise classified
L M

A: USS view of polyp
B: Hysteroscopic view of polyp
C: MRI of adenomyosis
D: USS of adenomyosis
E: Hysterectomy specimen containing fibroids
F: Hysterectomy specimen containing endometrial cancer
G: Histology of endometrioid carcinoma
H: Excessive bruising
I: USS of polycystic ovary
J: Progesterone receptor localisation in secretory phase
K: levonorgestrel-releasing intrauterine system (LNG-IUS)
L: Doppler USS of AV malformation
M: Doppler USS of endometrial pseudo-aneurysm

OBJECTIVES OF THE STUDY

1. To study incidence of AUB in all cases of elective hysterectomy
2. To study the various etiological factors for hysterectomy & distribution of these factors according to age.

METHODS

All patients undergoing hysterectomy at our institution were studied over a period of one year retrospectively in order to find out incidence of AUB as a cause of hysterectomy. Data including

age and clinical indication for hysterectomy was collected for the study. The etiological factors were classified to find out their individual incidence.

Inclusion criteria- All cases of elective hysterectomy.

Exclusion criteria- all cases of emergency obstetrics hysterectomy

RESULTS-**Table 1:** Etiological factors for hysterectomy according to age

AGE (in years)	AUB	UV PROLAPSE	CHRONIC PID
< 30	13	2	9
30-39	137	25	40
40-49	387	81	48
50-59	88	90	11
≥60	3	70	1
TOTAL	628	268	109

Total number of hysterectomies were 1005 done over study period & major reason behind hysterectomy was AUB (628 cases i.e 62.49 %) followed by UV prolapse (268 cases i.e. 26.67

%). Most cases belong to 40-49 age group in both AUB (61.62%) & Chronic PID(44.03%), while in UV Prolapse majority of cases were in 50-59 age group (33.58%).

Table 2 : Distribution of lesion according to age

AGE	DUB	Fibroid	Adenomyosis	Meno +PID	Meno +UVP	ENDO CA	C _x Dysplasia	GTN	TO Mass	GCT
< 30	8	4	-	-	1	-	-	-	-	-
30-39	68	32	5	15	2	-	1	3	1	-
40-49	154	92	19	12	7	1	1	-	1	-
50-59	54	18	7	-	1	5	2	-	-	1
≥60	2	-	-	-	-	-	1	-	-	-
TOTAL	396	146	31	27	11	6	5	3	2	1

DUB – Dysfunctional uterine bleeding ; Meno – Menorrhagia ; PID – Pelvic inflammatory disease; UVP – UV Prolapse ; Endo Ca- Endometrium Cancer; C_x Dysplasia- Cervical dysplasia ; GTN – Gestational Trophoblastic Disease; TO Mass – Tubo-ovarian mass; GCT – Granulosa Cell Tumour

- Out of total AUB (628 cases) majority of cases were DUB (396 cases i.e. 63.05 %) followed by fibroid (146 cases i.e 23.25 %), 31 cases (4.9%) were adenomyosis, 27 cases (4.3%) of menorrhagia & PID, 11 cases (1.7 %) have menorrhagia with uv prolapse
- Rare causes includes-, endometrial carcinoma (6 cases, 0.95%), Cervical dysplasia (5 cases, 0.79%), Gestational trophoblastic tumour (3cases, 0.47%) , tubo ovarian mass (2 cases ,0.32%) granulosa cell tumor (1 case ,0.16%)

- In 40-49 age group DUB was more common (154 cases), Fibroid was also a majority (92 cases). Adenomyosis (19 cases) & Menorrhagia + UV Prolapse (7 cases) affect same age group more.
- Menorrhagia + PID common in 30-39 age group
- GTN seen in 30-39 age group
- Single case of Granulosa Cell Tumour seen at age of 50 years
- Endometrial carcinoma (5 cases) & Cervical dysplasia (2 cases) common in 50-59 age group.

DISCUSSION

Hysterectomy is the surgical procedure which involves the total removal of the uterus with or without the fallopian tubes and ovaries. It gives definitive cure to many uterine and adnexal diseases like fibroids, DUB, adenomyosis, endometriosis, pelvic inflammatory disease, pelvic organ prolapse and malignancy. All

patients undergoing hysterectomy at our institution were studied over a period of one year retrospectively in order to find out incidence of AUB as a cause of hysterectomy, which is 62.49% in our study. The etiological factors were classified to find out their individual incidence.

Jairajpuri et al.¹¹ and Bhoomika et al.¹² observed that most of the abnormal uterine bleeding occurred in age group of 30 and 49 years (79.7%) and (80.66%) respectively. In our study most cases of AUB belong to age group of 40-49 years (61.62%)

Out of total AUB (628 cases) majority of cases were DUB (396 cases i.e. 63.05 %) followed by fibroid (146 cases i.e 23.25 %)..

Most international studies showed leiomyomas as the most common pathological lesion with a variable frequency. Its incidence is 25.8% in Abbah City of Saudi Arabia, 78% in the USA, 48% in Nigeria, and 8% in Sweden.^{13,14,15,16} ,in our study incidence is 23.25% Geographical and racial influences are thus apparent on the prevalence of uterine leiomyoma.

In our study, adenomyosis was found to be the next common pathology being the incidence of 4.9%. Its incidence in one of the Indian study is 26%, in Italy 24.9%, and in West Indies 6%.^{17,18,19} . Pandey D also reported 21/306 (6.86%) cases of adenomyosis in hysterectomy specimens²⁰.

In the present study incidence of carcinoma endometrium was more common in the 50–59 years age group. The result of this study was almost similar to data mentioned by Yusuf et al. and Escoffery et al. in their study^{21,22} The incidence of endometrial carcinoma in the present study was 0.95%. Gerald et al.²³ and Khan et al.²⁴ observed similar findings accounting for 1.7% and 0.4% respectively.

CONCLUSION

AUB could be social problem affecting the woman, physically, psychologically & economically with profound impact on their family lives. Since there is no definitive conservative

management for fibroid /adenomyosis/endometrial Cancer, the community may focus on the risk factors, to avoid radical treatment such as hysterectomy even at a young age. Further research on biochemical changes that influence the histochemical triggering of abnormal proliferation of endometrium may find a clue to conservative management of adenomyosis.

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