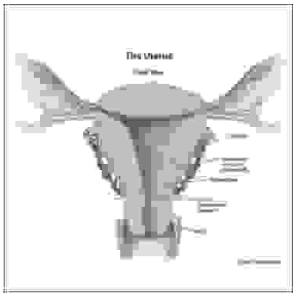
ORIGINAL PROF-1179

ABNORMAL UTERINE BLEEDING;

HYSTEROSCOPIC FINDINGS IN PATIENTS



DR. AMNA WAJEEHA
Department of Obstetrics and Gynaecology,
Nishtar Medical College and Hospital, Multan.

DR. MUHAMMAD ALI
Department of Obstetrics and Gynaecology,
Nishtar Medical College and Hospital, Multan.

DR. SHAHIDA PARVEEN
Department of Obstetrics and Gynaecology,
Nishtar Medical College and Hospital, Multan.

ABSTRACT... Objective: To determine the frequency of the various uterine pathologies detected during hysteroscopic examination in women with abnormal uterine bleeding. **Design**: Descriptive - case series. **Place and Duration of Study**: This study was conducted at Nishtar Hospital Multan in the Department of Obstetrics & Gynaecology Unit II from July 2005 to July 2006. **Patients and Methods**: A total of 70 patients admitted through gynecology outpatient department with complaint of abnormal uterine bleeding were evaluated. 40 patients were selected by non- probability purposive sampling. Assessment included detailed history, clinical examination, baseline investigations and pelvic ultrasound in all patients. ECG and X-ray chest of patients above 40 years was done. Diagnostic hysteroscopies were performed and findings were noted. **Results**: A total of 40 patients underwent diagnostic hysteroscopy. Most of the women were in perimenopausal age group with presenting complaint of irregular and heavy bleeding per vaginum. General anesthesia was used in all patients with saline as distension medium. Pathology was diagnosed in 52.5% with the help of hysteroscope. The most common pathology was endometrial polyp 27.5% followed by submucous fibroid 25%. No early or late complication was observed. **Conclusion**: Incidence of focal endometrial lesions in patients with AUB is high. Hysteroscopy provides direct visualization of endometrial cavity and hence accurately detects intrauterine pathology. It is safe, effective and successful investigation and should be considered a procedure of choice for evaluation of abnormal uterine bleeding.

Key words: Hysteroscopy, Abnormal uterine bleeding (AUB), Endometrial thickness

INTRODUCTION

Abnormal uterine bleeding (AUB) is one of the most frequent menstrual problems. It includes heavy and/or prolonged periods (menorrhagia) and any form of irregular bleeding per vaginum[1]. There are number of causes. It is usually due to abnormalities of reproductive tract which may be benign (polyp, submucous fibroid, adhesions etc.) or malignant or it may be due to infection, pregnancy related complications, iatrogenic factors and systemic diseases. However, majority of cases no

underlying pathology is detected and this is called dysfunctional uterine bleeding (DUB). The specific diagnostic approach depends on whether the patient is in reproductive age, perimenopausal or postmenopausal. Menorrhagia before the age of 40 is unlikely to be due to carcinoma[2] and its exclusion is not necessary in these patients[3,4]. However, assessing the endometrium is important in those who do not respond to medical therapy as they might have polyps[5] as well as those patients above that age. Any form of irregular uterine bleeding necessitates excluding local causes, especially in perimenopausal and postmenopausal patients[6].

Among the options available dilatation and curettage alone is shown to miss many lesions as it samples < 50% of the endometrium and hysteroscopy combined with endometrial biopsy is now regarded as investigation of choice[7]. Pipelle sampling is now widely used but will miss intrauterine polyps. TVS has been found to be good non-invasive method of screening but is not as useful as hysteroscopy in the presence of intrauterine pathology[8].

The advantages of hysteroscopy as an accurate diagnostic tool are that it allows direct visual observation and localization of pathology; hence a targeted biopsy. It allows correct diagnosis to be made, reduces the need for major and unnecessary surgery, and is therapeutic in most of the patients.

In case of endometrial carcinoma positive hysteroscopic findings are highly predictive of cancer but must always be confirmed by directed biopsy[9]. A negative hysteroscopic examination may miss endometrial carcinoma. Random biopsies via hysteroscope should be performed in these women[10].

PATIENTS AND METHODS

It was a descriptive study conducted at Department of Obstetrics & Gynaecology Unit II. Nishtar hospital Multan from July 2005 to July 2006. A total of 70 patients admitted through gynecology outpatient department with complaint of abnormal uterine bleeding were evaluated. Forty patients were selected by non-probability purposive sampling. Assessment included detailed history, clinical examination followed by baseline investigations (CBC, CUE, RBS). ECG and x-ray chest of the patients 40 years and above were performed. Patients having acute pelvic infection, pregnancy, cervical cancer, cervical stenosis, cardiopulmonary disorders, uncontrolled hypertension and diabetes mellitus were excluded from the study. Pelvic ultrasonography was done in all patients to predict different pelvic pathology. Diagnostic hysteroscopies were performed on planned lists. Data were collected and entered on specifically designed proforma.

Technique of Diagnostic Hysteroscopy

All hysteroscopies were performed using a standard 30 degree 5 mm hysteroscope of Karl Storz, made in Germany and uterine cavity was distended with normal saline.

Endometrial preparation

As diagnostic hysteroscopy is best performed without endometrial preparation, so no preoperative endometrial preparation was done.

Anesthesia

General anesthesia was used in all patients because facilities for hysteroscopy without anesthesia are not available in our setup.

Procedure

Pelvic examination was performed to assess the size and position of uterus. Vulva and vagina cleaned with antiseptic and anterior lip of cervix held with vulsellum forceps. Hysteroscope is inserted under direct vision in the first instance without dilatations. Once the cervical canal is passed, a panoramic view of uterine Cavity is obtained. Uterine distension at a flow rate of 40-60cc/min with pressure between 40-80 mm Hg achieves good visualization. The scope is then advanced towards the fundus and rotated to view the tubal costia. It can be then withdrawn and re-advanced to have a systemic review of all uterine walls. The cavity was specifically inspected for any intrauterine pathology and appearance of endometrium.

Postoperative

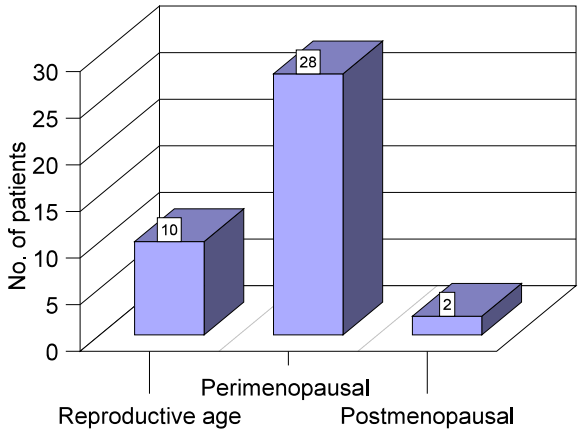
Small amount of vaginal bleeding and cramping pain

were experienced but no serious complication was observed.

RESULTS

A total of 40 patients underwent diagnostic hysteroscopy. most of the patients were of perimenopausal age (70%) and redproductive age (25%) (Figure-1).

Fig-1. Age distribution of patients (n=40)



Menstrual irregularity was observed in majority of the patients (75%) as shown in table-I.

Table-I. Presenting Complaints (n=40)

Complaint	No. of pts	%age
Menstrual irregularity	30	75%
Post-coital bleeding	3	7.5%
Inter-menstrual bleeding	2	5%
Post menopausal bleeding	2	5%
Vaginal discharge	3	7.5%

On clinical examination, cervical polyp was observed in 3(7.5%0 patients, uterus was enlarged and bulky in 6(15%) patients. Uterine mobility was restricted in 1(2.5%) patient and 4(10%) patients had vaginal charge (Table-II).

Ultrasonography revealed normal endometrial thickness in 25(60%) patients, while 10(25%) had increased endometrial thickness as shown in table-III.

Table-II. Clinic Findings(n=40)

Findings	No. of pts	%age
Cervical polyp	3	7.5%
Increased uterine size	6	15%
Restricted mobility	1	2.5%
Vaginal discharge	4	10%
Adnexal mass	-	-
Normal findings	26	65%

On hysteroscopy, endometrial polyp was detected in 11(27.5%) of the patients, submucous fibroid in 10(25%) patients. In rest of 19(47.5%) no pathology was detected (Table-IV). Endometrium appeared hyperplastic in 20(50%) patients and atrophic in 4(10%) where as rest of 16(40%) patients endometrium was normal looking (Table-V).

Table-III. Ultrasonographic Findings (n=40)

Findings	No of pts	%age
Thickened endometrium	10	25%
Fibroid	2	5%
Polyp	3	7.5%
Other pathology	-	-
Normal findings	25	62.5%

Table-IV. Observed on Hysteroscopy (n=40)

Findings	No. of pts	%age
Polyp	11	27.5%
Submucous fibroid	10	25%
Uterine growth	-	-
Uterine synaechie	-	-
Normal findings	19	47.5%

Table-V. Hysteroscopic Appearance of Endometrium (n=40)		
Appearance	**No. of pts**	**%age**
Normal	16	40%
Atrophic	04	10%
Hyperplastic endometrium with hyperemia	20	50%

DISCUSSION

Abnormal uterine bleeding (AUB) accounts for most of the visits to gynaecological clinic and almost 25% of gynaecological operations[11]. Causes of AUB include a wide spectrum of diseases including those of reproductive tract as well as non gynecological causes. However, in many patients no organic cause is found and condition is labelled as dysfunctional uterine bleeding (DUB).

Recognition of severity of problem, appropriate and timely evaluation and treatment with good outcome is the goal of any management. Hysteroscopy has become an important and valuable tool in evaluation of many conditions previously evaluated with blind and inaccurate techniques.

This study was conducted on 40 patients presenting with AUB. The main purpose of the study was to find out various intrauterine pathologies leading to abnormal uterine bleeding with the help of hysteroscopy.
Abnormal uterine bleeding predominantly affects women in perimenopausal age group. It may be due to increased incidence of pathology (polyp and fibroid) and perimenopausal endocrine abnormality. In our study 70% of the patients were perimenopausal, 25% of reproductive age and 5% were postmenopausal. Similar results were given by Kaunitz in his study[12].

Significance of pelvic examination cannot be denied. It can detect various pathologies like cervical polyp, enlarged uterus with fibroid and adenexal masses. During this study most common finding was enlarged bulky uterus in 6 patients (15%) followed by cervical polyp in 3 patients (7.5%) and vaginal discharge in 4 patients (10%). Pelvic examination was normal in 26 patients (65%).

Ultrasound plays an important part in assessment and detects uterine or adnexal pathology. In our study USG revealed pathology in 15(37.5%) of cases and most common being thickened endometrium in 10(25%) cases. It has been observed that cut-off level of > 8 mm in perimenopausal and > 5 mm in postmenopausal women provides good sensitivity and specificity for detecting benign and malignant lesions[13]. Intrauterine polyps and fibroid were seen in 3(7.5%) and 2(5%) of patients respectively. Similar results were observed by Goldstein[14]. However, in 62.5% of cases, USG revealed no abnormality. USG is operator dependant technique and often does not provide physician with sufficient diagnostic information.

Diagnostic hysteroscopy is long viewed as gold standard for evaluation of intra-cavity lesions. During our study, 40 patients underwent hysteroscopy. Intrauterine pathology was detected in 52.5% of the patients. Pasqualotto and associates found in 74%[15], Bender in 76%[16], Al-Kamil in 60%[17], Ganninoto in 58%[18] and Trostenberg[19] found pathology in 34% of patients. The difference might be due to patient selection, methodology, expertise and duration of symptoms.

The commonest finding in our study was endometrial polyp detected in 11(27.5%) of patients. This is in accordance with Trotsenberg 28%[19]. Al-Kamil found in 27%17 and Pasqualotto in 45%[15]. The second common pathology was submucous fibroid in 10(25%) cases. Pasqualotto found in 25% and Trotsenberg[19] in 14% cases. This finding of fibroid was strongly related to age and parity of the patients being more common in midlife perimenopausal women. Exclusion of carcinoma is main cause of concern in perimenopausal and postmenopausal women. Interestingly and one should say fortunately, no case with features suggestive of endometrial carcinoma was seen in this subset of patients. Similar results were observed by Trotsenberg[19].

In 47% of cases no pathology was detected. Normal findings were reported in 60% by Gimpelson and

Rappold[20]. 66% in Trotsenberg[19] and 54% by Mencaglia[21], while figure reported was 26% by Pasqualotto[15] and 24% by Bender[16]. It is likely that this contrast of percentages reported is due to different age group and the time of presentation.

During this study, hysteroscopic appearance of endometrium was hyperplastic with hyperemia in 20(50%) of patients, normal in 16(40%) and atrophic in 4(10%). These results are in accordance with the study conducted by Wong AY and associates[22].

Diagnostic hysteroscopy is simple and safe technique, well-accepted by vast majority of patients. Due to its excellent diagnostic accuracy and its high success rate it is the procedure of choice for diagnosis of AUB across all age groups. Traditional dilatation and curettage (D&C) under general anesthesia should no longer be regarded as diagnostic or therapeutic option for patients with abnormal uterine bleeding.

CONCLUSION

Incidence of focal endometrial lesions in patients with AUB is high. Hysteroscopy provides direct visualization of endometrial cavity and hence accurately detects intrauterine pathology. It is safe, effective and successful investigation and should be considered a procedure of choice for evaluation of abnormal uterine bleeding.

REFERENCES

1. Chamberlain GVP **Gynaecology by ten teachers.** 16th ed. London. Arnold; 1995. 173-5.
2. Mackenzie JZ, Bibby JG. **Critical assessment of dilatation and curettage in 1209 women.** Lancet 1978; ii: 566-9.
3. Grimes DA. **Diagnostic dilatation and curettage; a reappraisal.** Am J Obstet Gynecol 1982; 142:1-6.
4. The Royal College of Obstetricians and Gynaecologists. **In-patient treatment - D & C in women age 40 or less.** RCOG guidelines No. 3. London: RCOG Press; 1994.
5. Widrich T, Bradley LD, Mitchinson AR, Coilins RL. **Comparison of saline infusion sonography with office hysteroscopy for the evaluation of the endometrium.** Am J Obstet Gynecol 1996; 174: 1327-34.
6. Weeks AD, Duffy SRG. **Abnormal uterine bleeding; diagnosis and medical management.** Prog Obstet Gynaecol 1996; 12: 309-26.
7. Oehler MK, MacKenzie I, Kehoe S, Rees MC. **Assessment of abnormal bleeding in menopausal women: an update.** J Br Menopause Soc 2003; 9: 117-21.
8. Emanuel M, Vedrel MJ, Wamsteker K, Lammes FB. **A prospective comparison of TVS and diagnostic hysteroscopy in evaluation of patients with abnormaluterine bleeding: clinical implications.** Am J Obstet Gynecol 1996; 172; 547-52.
9. Gimpelson RJ, Rappold HO. **A comparative study between panoramic hysteroscopy with directed biopsies and dilatation and curettage. A review of 276 cases.** Am J Obstet Gynecol 1988; 158: 489.
10. Lo KW, Yuen PM. **The role of outpatient diagnostic hysteroscopy in identifying anatomic pathology and histopathology in the endometrial cavity.** J Am Assoc Gynecol Laparosc 2000; 7: 381.
11. Goldstein SR. **Menorrhagia and abnormal bleeding before the menopause.** Best Pract Res Clin Obstet Gynaecol 2004; 18: 59-69.
12. Kaunitz A. **Cover story: abnormal uterine bleeding in perimenopausal patients.** Contemporary Obstet Gynecol 2002; 4; 68-88.
13. Bronz L, Suter T, Ruscca T. **The value of transvaginal sonography with and without saline instillation in the diagnosis of uterine pathology in pre- and postmenopausal women with abnormal bleeding or suspect sonographic findings.** Ultrasound Obstet Gynaecol 1997; 9; 53-8.
14. Goidstein S. **Diagnosing abnormal uterine bleeding in perimenopausal women.** Contemporary Obstet Gynecol 2003; 48: 96-109.
15. Pasquatotto EB, Margossian H, Price LL, Bradley LD. **Accuracy of preoperative diagnostic tools and outcome of hysteroscopic management of menstrual.** J Am Assoc Gynecol Laparosc 2000; 7: 201-9.
16. Bender R, Rzepka-Gorska 1. **Panoramic hysteroscopy in prophylaxis of pre- cancerous lesions and endometrial carcinoma.** Ginecol Pol 2001; 72:1423-8.
17. Al-Kamil. **Clinical effectiveness of hysteroscopy in**

abnormal uterine bleeding. J Obstet Gynaecol 2001; 21; 614-6.

18. Gianninoto A, Morana C, Campione C. **Diagnostic hysteroscopy in abnormal uterine bleeding.** Five-years' experience. Minerva Ginecol 2003; 55: 57-61.

19. Van Trotsenburg M, Wieser F, Nagele F. **Diagnostic hysteroscopy for the investigation of abnormal uterine bleeding in premenopausal patients.** Contrib Gynecol Obstet 2000; 20: 21-6.

20. Gimpelson RJ, Rappold HO. **A comparative study between panoramic hysteroscopy with directed biopsies and dilatation and curettage. A review of 276 cases.** Am J Obstet Gynecol 1988; 158: 489-92.

21. Mencaglia L, Perino A, Hamou J. **Hysteroscopy in perimenopausat and postmenopausal women with abnormal uterine bleeding.** J Reprod Med 1987; 32: 577-82.

22. Wong AY. Wong KS, Lok YH, Kwok AC, Tang LC. **Outpatient diagnostic hysteroscopy: analysis of 429 cases.** Chin Med J 1998; 11: 728-30.

GOOD NATURE IS WORTH MORE THAN KNOWLEDGE,
MORE THAN MONEY,
MORE THAN HONOR,
TO THE PERSON WHO POSSESS IT.

Henry Ward Beecher