ROLE OF HYSTEROSCOPY IN ABNORMAL UTERINE BLEEDING IN PERIMENOPAUSAL AGE GROUP
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ABSTRACT: OBJECTIVE: The objectives included evaluation of the role of hysteroscopy in the diagnosis of abnormal uterine bleeding in women of perimenopausal age group and to correlate the hysteroscopic findings with that of histopathology. METHODOLOGY: A total of fifty perimenopausal women were subjected to hysteroscopy followed by endometrial sampling for histopathological examination. RESULTS: The age of the subjects ranged from 40 years to 53 years, with a mean of 43.64 years. Most of the women were multiparous and presented with menorrhagia. Hyperplasia was the most common finding observed on hysteroscopy. Polyps, fibroid and endometrial atrophy were diagnosed with 100% accuracy by hysteroscopy. Hyperplasia was correctly diagnosed in 94% of the cases. Hysteroscopy showed a high sensitivity and a good negative predictive value. CONCLUSION: Hysteroscopy increases the accuracy of clinical diagnosis and may serve as an adjunct in the treatment of patients with specific intrauterine pathological conditions.

KEY WORDS: Hysteroscopy, Abnormal uterine bleeding, Perimenopause

INTRODUCTION: Abnormal uterine bleeding (AUB) is one of the commonest conditions for which patients seek advice in the gynecological out-patient department. Many otherwise healthy women will experience a significant disruption in lifestyle from abnormal uterine bleeding. The causes and differential diagnosis of abnormal uterine bleeding are heterogeneous and complex. A systematic evaluation within the framework of a careful history and physical examination would help in reaching a diagnosis. Hysteroscopy is a surgical procedure in which a gynecologist uses a small lighted telescopic instrument called a hysteroscope to diagnose and treat many uterine disorders, including abnormal bleeding. The ability to observe the entire endometrium provides accuracy and precision in sampling. Hysteroscopy not only offers a quick, safe and accurate diagnosis, but also curative in cases of fibroid polyps, intrauterine adhesions, menorrhagia and lost IUCD. (intrauterine contraceptive device).

AIMS & OBJECTIVES: The objectives of the study included

1. To evaluate the role of hysteroscopy in the diagnosis of abnormal uterine bleeding in women of perimenopausal age group.
2. To correlate the hysteroscopic findings with that of histopathology.

MATERIALS AND METHODS: This prospective study included a total of fifty women of perimenopausal age group with abnormal uterine bleeding, who were admitted to our hospital.
All perimenopausal women presenting with abnormal uterine bleeding were included and women with active or recent pelvic inflammatory disease, patient in menstruation phase, suspected cervical malignancy, active uterine bleeding, pregnancy/suspected pregnancy complications, systemic disorders causing abnormal uterine bleeding were excluded from the study. A detailed history was taken and a thorough clinical examination was done, complemented by relevant investigation as required by the study. All the data were duly recorded in the standard prepared proforma. A valid written consent was taken from all the cases and subjected to diagnostic hysteroscopy using 4mm rigid Storz Hysteroscope and 5mm sheath. Normal saline was used as distension media. The procedure was done under short general anaesthesia. A thorough examination was performed. Endometrial biopsy was taken from all the cases and tissue specimen sent for histopathological examination. The clinical, hysteroscopic and histopathological findings were documented and analysed.

RESULTS: Among the 50 cases studied, maximum number of cases (56.0%) belonged to the age group 40 – 43 yrs, with a mean age of 43.64 yrs. Forty eight percent of women were multiparous, thus showing that with increase in parity there is increase in abnormal uterine bleeding. This observation is significant with a p-value of <0.0001. Fifty two percent had painless bleeding, and dysmenorrhoea was seen in the remaining cases (48%). Most of the patients (62%) in the study were anaemic. The commonest type of bleeding was menorrhagia (68%), followed by polymenorrhagia (22%), metrorrhagia (6%) and metropathia hemorrhagica (4%). Hyperplasia was the most common finding (50%) followed by a normal hysteroscopic finding in 30%. In 10% of cases fibroid was seen, polyp in eight percent and atrophic endometrium in only two percent of cases. Graph 1 shows the hysteroscopic findings. On histopathological examination of these samples, 48% showed normal endometrium (34% belonged to proliferative phase and the remaining 14% showed secretory changes). Thirty two percent of women showed endometrial hyperplasia. Fibroid and endometrial polyp was observed in 10% and 8% of the cases respectively and only two percent of cases showed atrophic changes.

On comparing the hysteroscopic findings with that of histopathology, it was observed that of the twenty five cases labelled as hyperplastic on hysteroscopy, only fifteen cases were confirmed as hyperplastic on histopathology while remaining 10 cases showed normal findings on histopathology. Graph2 shows the comparative results of hysteroscopy and the histopathological features. Fourteen out of 15 cases, which were labelled as normal endometrium on hysteroscopy showed normal histological features and the other case showed hyperplastic features on histopathological examination. Endometrial polyps, fibroids and atrophic changes were defined in similar numbers without any discrepancies on both hysteroscopy and histopathology. In the present study the sensitivity and specificity of hysteroscopy was 96.15% and 58.33% respectively. Also the predictive value of a negative test and the predictive value of a positive test was 93% and 71%, respectively.

DISCUSSION: Abnormal uterine bleeding is one of the commonest conditions for which patients seek advice in the gynaecological out-patient department. Endometrial sampling should be performed to evaluate abnormal bleeding and diagnostic aids like dilatation and curettage (D & C), ultrasonogram and hysteroscopy are essential for the evaluation of abnormal uterine bleeding. However D & C performed before hysterectomy has showed that less than half of the endometrium was sampled in more than half of the patients has led to questioning of the use of
D & C for endometrial diagnosis [1], and it is realized that routine D & C is ineffective in cases like focal lesion of endometrium or fibroid polyps [2]. Intrauterine visualisation for the evaluation of patients with AUB represents the "gold standard" today [3]. Hysteroscopy, either diagnostic or operative, with endometrial sampling is gaining acceptability over other diagnostic technique and it can be performed either in the office or operating room. The ability to observe the entire endometrium provides accuracy and precision in sampling. It not only offers a quick, safe and accurate diagnosis, but also is curative in cases of fibroid polyps, intrauterine adhesions, menorrhagia and lost IUCD. Widrich T et al [4] and Haemila FA et al [5] observed a mean age of 44.8 yrs and 45.7 years respectively which were close to the mean age of 43.64 years, observed in the present study. Maximum number (48%) of women were multiparous as observed by Jyotsna and co-workers (54.7%) [6], suggesting that increasing parity increased the rate of abnormal uterine bleeding. Towbin et al [7] observed menorrhagia in 61.7% of patients, close to the findings of the present study (68%). Most of the patients were anaemic which explains the severity and duration of the symptoms. Normal hysteroscopic findings were observed in 30% of the cases which is similar to the study by Sciarra and Valle [8], who observed normal hysteroscopic findings in 28.4% of cases. Close to this value, was in the study by Towbin et al [7] and Jyotsna et al [6] who observed normal hysteroscopic findings in 27% and 34% of cases, respectively. Table 1 shows the comparison of various studies with regard to the hysteroscopic findings.

In the present study, the most common Hysteroscopic finding observed was hyperplasia, a similar frequency was observed by Saraiya (13%) [9]. Present study labelled eight percent of the cases as having endometrial polyp, similar to the observations by Neumann et al [10] Hunter et al [11], and Saraiya et al [9] with a value of 6%, 7%, and 9.3% respectively. Table 1 shows the comparison of the accuracy of hysteroscopy in diagnosing abnormal lesions in various studies.

Sensitivity of hysteroscopy has been found to be high (96%) in the present study which is in agreement to the results observed by various authors like Ariel Revel et al [15] who noticed a sensitivity of 94.2%, Paransis et al (92%) [14]. However specificity has been found to be much lower. Abnormal uterine bleeding which often prevails as an important and common gynecological ailment in the perimenopausal age group is commonly associated with painless menorrhagia. Most of the patients may have normal endometrium but however a significant number have uterine lesions, commonly being hyperplasia. Our study has proved the utility of hysteroscopy in the diagnosis of various endometrial and intrauterine lesions, with high sensitivity, predictive value of a negative test and low false negativity. However specificity may be low and false positive finding may occur, hence biopsy and histological confirmation is required in all cases. Thus hysteroscopy should be used as a first line diagnostic modality in patients complaining of abnormal uterine bleeding.

CONCLUSION: The key to the evaluation of abnormal uterine bleeding is a thorough history, physical and pelvic examinations governed by differential diagnosis of excessive intrauterine bleeding and selective use of adjunctive diagnostic tests and procedures only when absolutely necessary. Hysteroscopy may not supplement other diagnostic procedures but compliments them. Hence can be considered as a safe ambulatory procedure that is appealing to both patients & gynaecologists in its economy & simplicity, providing alternatives to hysterectomy in patients who prefer or are best suited by conservative treatment.

REFERENCES:

Table 1:

<table>
<thead>
<tr>
<th>Authors</th>
<th>Accurate results (in %)</th>
<th>Inaccurate results (%)</th>
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<tr>
<td>Sheth SS etal (1990) [12]</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>B.K.Bhattacharya(1992) [13]</td>
<td>77%</td>
<td>23%</td>
</tr>
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<td>Parasnis etal (1992) [14]</td>
<td>93.75%</td>
<td>6.25%</td>
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<td>Present study (2008)</td>
<td>78%</td>
<td>22%</td>
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Graph 1: Hysteroscopy findings

Graph 2: Comparison of hysteroscopic findings with histopathology