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PREVALENCE OF HYSTEROSCOPIC FINDINGS AND HISTOLOGIC DIAGNOSES IN PATIENTS WITH ABNORMAL UTERINE BLEEDING

DR. MANISHA KANSAL[1], DR. SUMAN MENDIRATTA[2] DR.SHREYA ASOPA[3] DR.LEENA SAINI[4]

AUTHOR CREDENTIALS:

POST GRADUATE STUDENT[1,3], PROFESSOR & UNIT HEAD[2] ,ASSOCIATE PROFESSOR[4] DEPARTMENT OF OBSTETRICS & GYNAECOLOGY, NIMS&R, JAIPUR

Corresponding Author: Dr. Manisha Kansal, Post Graduate Student, Department of Obstetrics & Gynaecology, NIMS&R, Jaipur

Email ID: kansalmani57@gmail.com

ABSTRACT:

Background: Abnormal Uterine Bleeding (AUB) is a term that encompasses any deviation from the normal menstrual cycle or pattern. It is characterized by irregularities in regularity, frequency, heaviness, and duration of flow, all of which can exhibit significant variability. Hysteroscopy adds a visual dimension to the examination, allowing for the exploration of previously inaccessible areas within the uterine cavity. This enhances precision and accuracy in identifying abnormalities.

Methods: From September 2022 to December 2022, the Department of Obstetrics and Gynaecology at the National Institute of Medical Sciences & Research in Jaipur conducted a prospective study within a hospital setting.

Results: In our study, out of 220 cases, the most common finding was a proliferative endometrium, observed in 41.36% of cases. This was followed by secretory and hyperplastic endometrium, found in 21.82% and 20.45% of cases, respectively. The least common finding was a misplaced Copper-T intrauterine device, which was observed in only 2 cases, accounting for less than 1% of the total.

Conclusion: The research affirms the reliability of hysteroscopy as a valuable method for assessing abnormal uterine bleeding (AUB), particularly in benign conditions like endometrial polyps and submucous myomas. It can be utilized as the primary diagnostic tool for these abnormalities. However, hysteroscopy alone, without a targeted biopsy, may not provide sufficient diagnostic value in cases of endometrial hyperplasia. Therefore, it is recommended to combine hysteroscopy with curettage in AUB cases to improve its sensitivity and positive predictive value.

Keywords: Abnormal uterine bleeding, hysteroscopy, endometrial polyp, histopathology, prevalence

INTRODUCTION:

Abnormal Uterine Bleeding (AUB) is a term that encompasses any deviation from the normal menstrual cycle or pattern. It is characterized by irregularities in regularity, frequency, heaviness, and duration of flow, all of which can exhibit significant variability. AUB can be either acute or chronic, and it affects 9-14% of women between menarche and menopause. Nearly 30% of women experience heavy menstrual bleeding throughout their reproductive life[1].

While AUB is not typically life-threatening, it can have a significant emotional and physical impact on women. Normal uterine bleeding varies considerably among women, which can make it challenging to identify abnormal patterns. Any vaginal bleeding that is excessively more or less than normal in duration, frequency, or amount for a specific individual should be considered abnormal and investigated accordingly[1].

The menstrual cycle is characterized by ovulation and a sequence of endocrine signals that lead to the regularity, predictability, and consistency of menses. Any deviation from these characteristics can result in AUB. The causes of AUB are diverse and can include uterine polyps, fibroids, adenomyosis, cancer, blood clotting disorders, problems with ovulation, endometrial problems, and healthcare-induced causes. More than one category of causes may apply in an individual case[1].

An ideal diagnostic test should be easy to perform, acceptable to patients, low-cost, minimally invasive, and have high sensitivity and specificity.

Hysteroscopy adds a visual dimension to the examination, allowing for the exploration of previously inaccessible areas within the uterine cavity. This enhances precision and accuracy in identifying abnormalities, even when they are focal or located at utero-tubal cones. Hysteroscopy serves as a valuable extension of the gynecologist's armamentarium[2].

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MATERIAL AND METHODS :

The Study was conducted in Department Of Obstetrics & Gynaecology, National Institute Of Medical Sciences, Jaipur, Rajasthan. From September 2022 to December 2022.

INCLUSION CRITERIA:
All cases of abnormal uterine bleeding giving consent to be a part of the study from the age group of 18 and above.
EXCLUSION CRITERIA:
1.STDs and vaginitis
2. Uterine and cervical infections
3. Carcinoma cervix
4. Active pelvic inflammatory disease
5. Severe medical disorders like thyroid disease, and coagulation disorders.

All eligible patients who gave consent were thoroughly interviewed and investigated according to the inclusion and exclusion criteria.

CLINICAL EVALUATION
Upon patient enrollment, an exhaustive history was obtained from both partners. This was followed by a comprehensive physical examination, which included the assessment of vital parameters and a detailed systemic examination. A thorough gynaecological examination was also performed. Routine investigations were conducted. Blood & urine investigations including other investigations: Pap smear and pelvic ultrasonography are done.

PROCEDURE:
The patient was arranged in a semi-lithotomy position. A thorough cleaning of the vulva, perineum, vagina, abdomen, and upper thighs was performed using an antiseptic solution, followed by the placement of sterile linen over these areas. The hysteroscope was set up and all its components were checked for readiness before utilization. The instrument was then introduced via the vaginoscopic method. The uterine cavity was dilated using normal saline. An exhaustive examination was carried out, encompassing the endocervical canal, the entire uterine cavity, and the endometrium. A detailed visualization of the uterine cavity was obtained and the endometrium was systematically examined for any signs of potential pathology.

RESULTS & DISCUSSION:

TABLE 1: FREQUENCY DISTRIBUTION OF AGE OF PATIENTS

Age Interval (Years)	n = 220	In %
25 - 35	72	32.73%
36 - 45	60	27.27%
46 - 55	61	27.73%
> 55	27	12.27%
Total	220	100%

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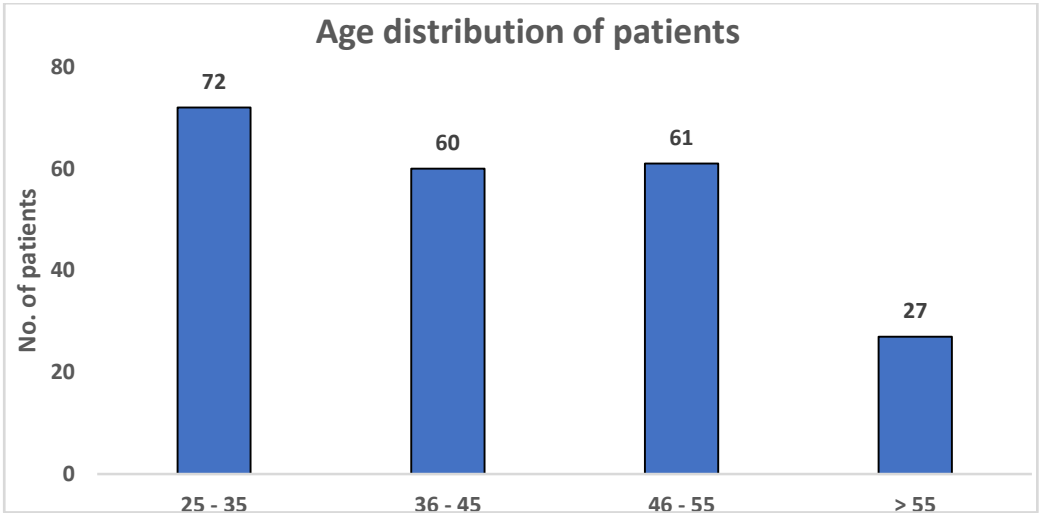
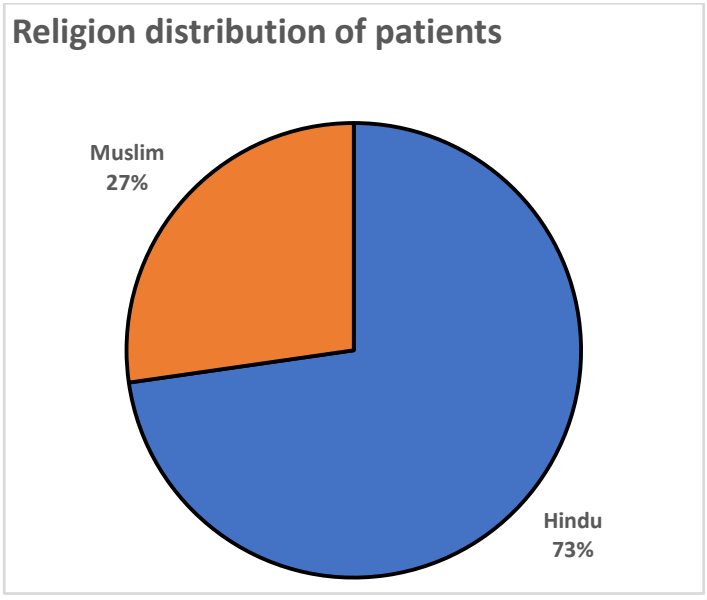


The table presents the age distribution of patients with Abnormal Uterine Bleeding (AUB). The study encompassed 220 patients. The largest group, comprising 32.73% of the cases, were aged between 25 and 35 years. The next two age groups, 36-45 years and 46-55 years, each accounted for approximately 27% of the cases. Only 12.27% of the cases were above 55 years of age. Notably, 60% of the AUB cases were within the reproductive age group of 25-45 years.

TABLE 2: FREQUENCY DISTRIBUTION OF RELIGION OF PATIENTS

Religion	n = 220	In %
Hindu	160	72.73%
Muslim	60	27.27%



In the current study, the majority of the cases were of Hindu faith, accounting for 72.73%, while Muslims made up 27.27%. This distribution reflects the high proportion of Hindus in the state of Rajasthan, which is also mirrored in the demographics of our Outpatient Department (OPD) patients.

Age is a significant factor in AUB, with different causes observed in adolescents, the reproductive age group, and the peri and post-menopausal age groups. The transition from the reproductive to the premenopausal age group is often associated with hormonal disturbances and a shift from benign to malignant neoplastic growth.

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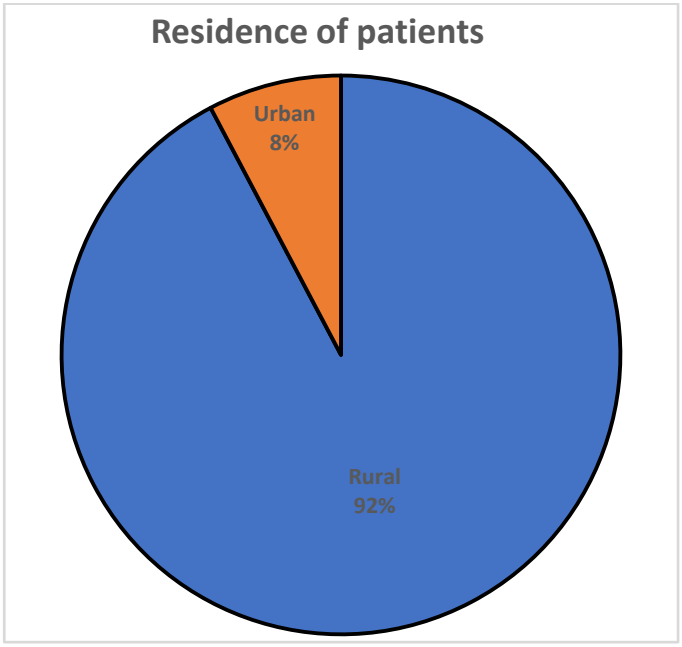
Similar results were found in most of the earlier studies e.g. Tajossadat Allameh et al (2007)[3], Dr. Sunitha Channareddy et al (2013)[4].

TABLE 3: FREQUENCY DISTRIBUTION OF RESIDENCE OF PATIENTS

Residence	n = 220	In %
Rural	203	92.27%
Urban	17	7.73%



The table above indicates that out of the total cases, 203 (or 92.27%) were from rural areas, while 17 (or 7.73%) were from urban areas. This distribution is understandable given that our hospital is located in a rural area and primarily serves the rural population.

TABLE 4: FREQUENCY DISTRIBUTION OF HYTEROSCOPY ENDOMETRIUM FINDINGS OF PATIENTS

Endometrium	n = 220	In %
Proliferative	91	41.36%
Secretory	48	21.82%
Hyperplastic	45	20.45%
Endometrial Polyp	13	5.91%
Atrophic	15	6.82%
Ca Endometrium	6	2.73%
Misplaced Cu-T	2	0.91%

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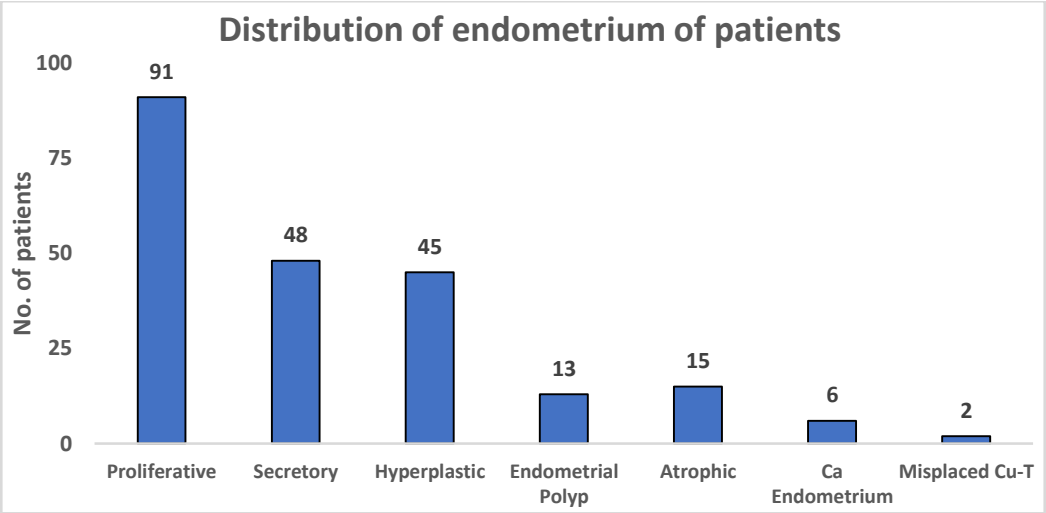

The table above presents the results of hysteroscopic examinations in patients with Abnormal Uterine Bleeding (AUB) from our study. Hysteroscopy provides a direct view of the uterine cavity, allowing for precise identification of intrauterine pathologies.

In our study, the most common finding was a proliferative endometrium, observed in 41.36% of cases. This was followed by secretory and hyperplastic endometrium, found in 21.82% and 20.45% of cases, respectively. The least common finding was a misplaced Copper-T intrauterine device, which was observed in only 2 cases, accounting for less than 1% of the total.
In our study, endometrial atrophy was identified as the cause of Abnormal Uterine Bleeding (AUB) in 6.82% of cases. This condition is visible on hysteroscopy as a whitish, thin epithelial lining with prominent ostia.

Comparable incidences of 8% and 6% were reported in studies conducted by Sheetal G Patil et al (2009)[5], and Dr. Sunitha Channareddy et al (2013)[4], respectively, aligning closely with our findings.

TABLE 5: FREQUENCY DISTRIBUTION OF HISTOPATHOLOGICAL FINDINGS OF PATIENTS

HPR	n = 220	In %
Normal Proliferative Endometrium	94	42.73%
Normal Secretory Endometrium	51	23.18%
Hyperplastic Endometrium	39	17.73%
Endometrial Polyp	18	8.18%
Atrophic Endometrium	6	2.73%
Submucous Myoma	2	0.91%
Ca Endometrium	7	3.18%
No Endometrium Obtained	3	1.36%

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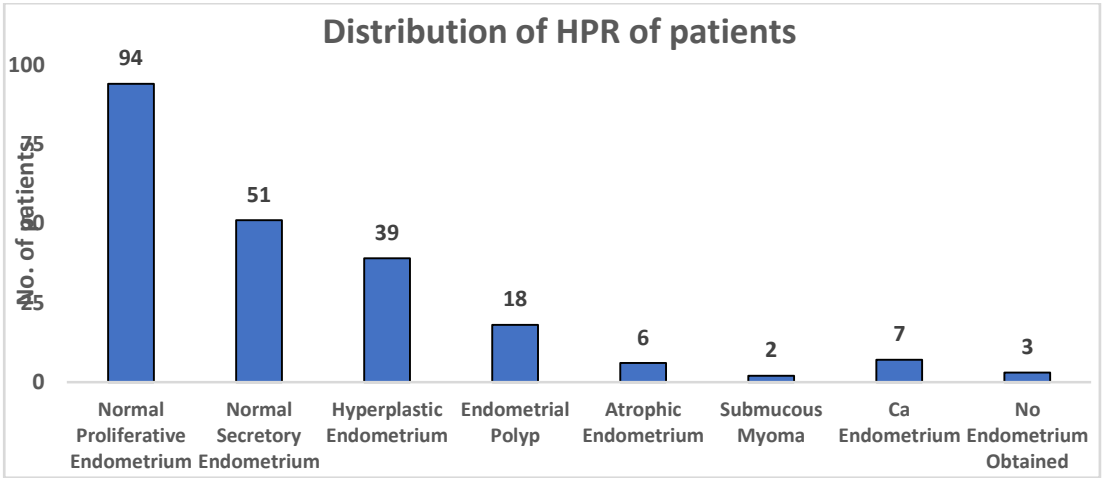

The table above presents the distribution of cases based on their histopathology report (HPR) findings. In our study, the HPR was normal for 65.91% of the cases.

Hyperplastic endometrium was diagnosed in 17.73% of the cases based on histopathology. Atrophic endometrium was found in 2.73% of patients according to their histopathological findings, and seven patients (3.18%) were diagnosed with endometrial carcinoma through HPR. Additionally, six cases (2.73%) of atrophic endometrium were identified.

CONCLUSION:

Hysteroscopy is a minimally invasive procedure that allows for a comprehensive examination of the uterine cavity with the help of a visual guide. It is considered as the standard technique for evaluating and managing intrauterine pathology. The procedure involves inserting a rigid or flexible hysteroscope through the cervical canal into the uterus. Distending media is then used to allow for complete visualization of the endometrial cavity.

The research affirms the reliability of hysteroscopy as a valuable method for assessing abnormal uterine bleeding (AUB), particularly in benign conditions like endometrial polyps and submucous myomas. It can be utilized as the primary diagnostic tool for these abnormalities. However, hysteroscopy alone, without a targeted biopsy, may not provide sufficient diagnostic value in cases of endometrial hyperplasia. Therefore, it is recommended to combine hysteroscopy with curettage in AUB cases to improve its sensitivity and positive predictive value.

It should be acknowledged that the female participants in this study were predominantly from a rural population in North India, and therefore, the applicability of our findings to other populations may be limited or variable.

This study underscores the significance of systematically aligning hysteroscopic observations with tissue histopathology. Future investigations should aim to establish a correlation between both hysteroscopic and histopathological findings and subsequent gynaecological examinations, as well as long-term clinical outcomes.

Hysteroscopy is indeed a valuable tool for both diagnosis and treatment of symptomatic intrauterine pathology. It complements other diagnostic procedures such as endometrial biopsy and ultrasound, and can establish an accurate diagnosis in a majority of patients, thereby reducing the need for hysterectomy6.

Hysteroscopy is considered the "new gold standard" in evaluating a case of abnormal uterine bleeding. It allows for minimally invasive diagnosis and surgical management of endocervical and intrauterine pathology.

In conclusion, hysteroscopy is a highly effective tool in the diagnosis and treatment of intrauterine pathology, and its use can lead to better patient outcomes and satisfaction.

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