

# Role of Diagnostic Hysteroscopy in the Evaluation of Infertility - A Prospective Study

Dr. Chandrashekar K<sup>1</sup>, Dr. Anagha Shyam Prasad<sup>2</sup>, Dr Vijayalakshmi B<sup>3</sup>, Dr. Shainaz Tabassum<sup>4</sup>

<sup>1</sup>Associate Professor, Ballari Medical College and Research Centre, Ballari

<sup>2</sup>Junior Resident, Ballari Medical College and Research Centre, Ballari

<sup>3</sup>Professor, Dept of OBG, Ballari Medical College and Research Institute, Ballari

<sup>4</sup>Junior Resident, Ballari Medical College and Research Centre, Ballari

**Abstract:** Infertility, affecting between 4 and 17 percent of the population in India, is a significant societal concern. Defined by the World Health Organization as the inability to achieve clinical pregnancy after 12 months of regular unprotected intercourse, infertility requires comprehensive evaluation. This study investigates the role of diagnostic hysteroscopy in assessing and managing infertility. Conducted over six months at Vijayanagar Institute of Medical Sciences, Ballari, the study involved infertile women aged 20 to 40 with normal hormone profiles. Among 35 participants, primary infertility was more common than secondary, with ovarian pathologies like polycystic ovarian disease frequently identified through laparoscopy. Hysteroscopy commonly revealed tubal blockages. The study concludes that diagnostic hysteroscopy is a safe and effective method for identifying and correcting infertility-related anomalies, often missed during routine pelvic examinations.

**Keywords:** infertility, hysteroscopy, ovarian pathology, tubal blockage, endometriosis

## 1. Introduction

- Infertility is a growing concern of the society. Prevalence of primary infertility in India is between 4 and 17 percent.
- World health organization defines infertility as "A disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse".
- The ability to see and manipulate the uterus, fallopian tubes and ovaries during laparoscopy has made it an essential part of infertility evaluation. Similarly visualizing the uterine cavity and identifying the possible pathology has made hysteroscopy an important tool in the evaluation of infertility evaluation.
- This study was undertaken to evaluate the role of diagnostic hysteroscopy in the comprehensive workup of infertility that would help in the appropriate management for infertility.

## Aims and Objectives

- To determine the role of diagnostic hysteroscopy in the evaluation of infertility in tertiary care centres.
- To identify and treat the correctable pathologies like septum, endometrial polyp, adhesions and fibroids during the same surgical sitting.

## 2. Materials and Methods

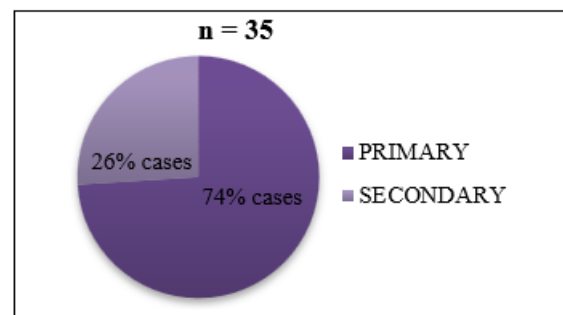
This prospective study was conducted in Department of Obstetrics and Gynaecology, Vijayanagar Institute of medical sciences, Ballari during the period of 1 year – December 2022 – December, 2023

Infertile women in the age group of 20 to 40 years with normal hormone profile and after basic investigations like CBC, blood sugar levels, trans abdominal USG Abdomen and without male factor infertility were selected and written

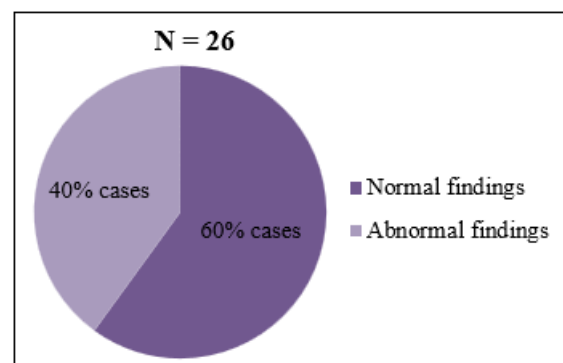
informed consent was taken. In all the cases were performed on day 8-11 of the menstrual cycle.

## 3. Results

Out of 35 patients, 26 cases (74%) were primary infertility and 9 patients (26%) were of secondary infertility.

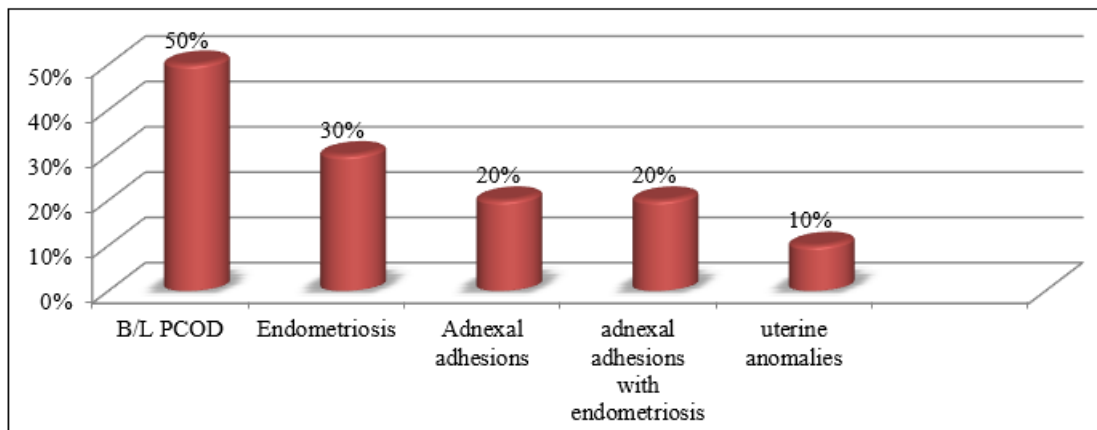


In cases of primary infertility (N = 26), normal laparoscopic findings were seen in 61.5% of cases (N = 16) and abnormal laparoscopic findings were seen in the remaining 38.4% (N = 10) cases.



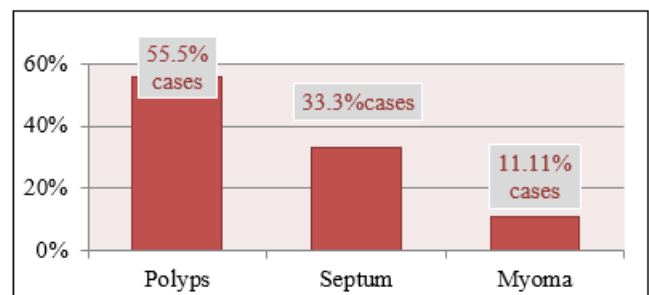
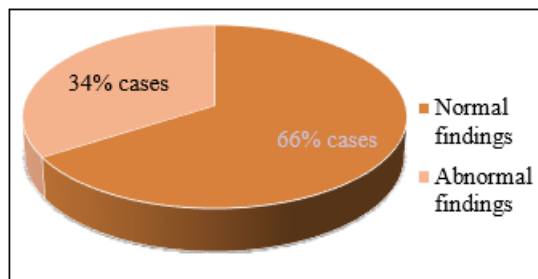
Amongst laparoscopic findings, B/L PCOD was the most common finding observed (50% - 5 in number), followed by endometriosis (30% cases – 3 in number). The other findings

observed were adnexal adhesions (20% cases– 2 in number), uterine anomalies (unicornuate uterus – 1 case) and adnexal adhesions with endometriosis – 2 cases were seen.



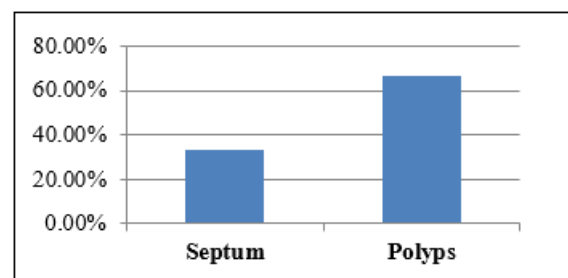
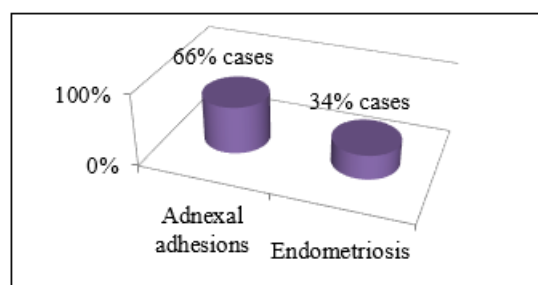
In cases of secondary infertility, normal laparoscopic findings were seen in 66% cases – 6 in number and abnormal laparoscopic findings seen in 34% cases – 3 in number

Amongst cases of primary infertility with abnormal hysteroscopic findings (N = 9), polyps were seen in 5 cases, 3 had septum and 1 had myoma.

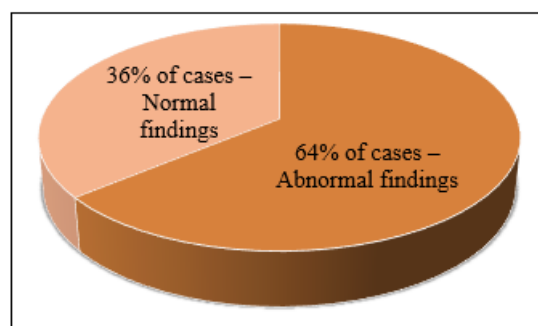


Amongst cases of secondary infertility with abnormal laparoscopic findings (N = 3), adnexal adhesions were seen in 2 cases (66%) and in 1 case (33%) endometriosis was seen

Amongst cases of secondary infertility (N =9), 77.7% (6 cases) had normal hysteroscopic findings and 3 had abnormal findings. Out of the 3 cases, 1 had septum (33.33%) and 2 had polyps (66.66%).



Amongst cases of primary infertility, normal hysteroscopic findings were seen in 17 cases (64%) and abnormal hysteroscopic findings were seen in 9 cases (36%).



- Pathologies like hypoplastic uterus, unicornuate uterus was most commonly seen in patients with primary infertility, more than secondary.
- Falloposcopy was done for 4 patients – 2 showed bald mucosa and 2 showed normal study

#### 4. Conclusion

- Diagnostic hysterolaparoscopy is an effective and safe tool for comprehensive evaluation of infertility, particularly in detecting endometriosis, adnexal adhesions, polycystic ovaries and septate uterus.

- These correctable anomalies that are missed in routine pelvic examination can be corrected in a single setting with the help of diagnostic hysteroscopy with procedures like ovarian drilling, release of synechiae

## **References**

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