

**ROLE OF DIAGNOSTIC HYSTEROLAPAROSCOPY IN EVALUATION OF FEMALE INFERTILITY**Jayanthi T<sup>1</sup>, Suvarna R<sup>2</sup>, Nirmala S<sup>3</sup><sup>1</sup>Professor, Department of Obstetrics & Gynaecology, Kempegowda Institute of Medical Sciences, Bangalore.<sup>2</sup>Professor, Department of Obstetrics & Gynaecology, Kempegowda Institute of Medical Sciences, Bangalore.<sup>3</sup>Professor, Department of Obstetrics & Gynaecology, Kempegowda Institute of Medical Sciences, Bangalore.**ABSTRACT****AIM**

To evaluate the role of hysterolaparoscopy in female infertility.

**SETTINGS AND DESIGN**

Patients with female infertility presenting to outpatient Department of Obstetrics and Gynaecology in Kempegowda Institute of Medical sciences, Bengaluru were evaluated for infertility by hysterolaparoscopy and chromopertubation.

**MATERIALS AND METHODS**

Seventy consenting subjects excluding male factor infertility with normal hormonal profile and no contraindication to laparoscopy underwent ultra-sonography. Then all patients were subjected to combined hysterolaparoscopy including chromopertubation and the results were recorded.

**STATISTICAL ANALYSIS USED**

T-test.

**RESULTS**

We studied 70 patients comprising of 40(57.1%) cases of primary infertility and 30(42.9%) patients of secondary infertility. In our study most commonly found pathologies were PCOD, endometriosis and tubal blockage.

**CONCLUSIONS**

Results show that hysterolaparoscopy has a promising role in diagnosing and treating infertility. hysterolaparoscopy has emerged as a new hope for infertile couples before they proceed to time-consuming and expensive assisted reproduction techniques.

**KEYWORDS**

Diagnostic tool, infertility, hysterolaparoscopy.

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**INTRODUCTION:** Infertility, according to WHO, is defined 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". Infertility affects 10-15% of couples. Female factor is the cause in 40-55% of cases, f the male factor in 30-40%, both partners 10% and unexplained 10% in the remainder. Combined laparohysteroscopy helps in evaluating tubal morphology and patency, ovarian morphology, unsuspected pelvic pathology, and uterine cavity abnormalities. Advantage of Laparoscopy is that some of the conditions like endometriosis, adhesions and uterine septum can be treated at same time. Which the present study aims to evaluate the

role of laparohysteroscopy in knowing the probable cause for infertility.

**METHODOLOGY:** Women with infertility presenting to the Department of OBG at KIMS Bangalore from May 2012 to December 2014. The age of the women was 20 to 40 years. Male factors, Mullerian agenesis, were ruled out. Informed consent was obtained.

A detailed history and clinical examination was done. investigations done were heamogram, blood sugar, TC, DC, ESR, blood urea, Serum creatinine, Hormonal study, chest x-ray, Mantoux test USG and husband's semen analysis.

We had seventy women of which 40 (57.1%) had primary infertility and 30(42.9%) had secondary infertility.

Hysteroscopy was done and uterine cavity visualized for presence of septum, polyps, myomas, adhesions, endometrial appearance and thickness. Both tubal ostia were visualized. Endocervical canal was also visualized.

Laparoscopy was done and pelvic cavity inspected. Uterus was inspected for its size and surface. Pouch of Douglas was inspected for any adhesions, endometriotic spots and fluid. Ovaries were visualized and fallopian tubes

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were inspected for any pathology and noted. Laparoscopic chromopertubation was done with methylene blue dye injected via Leech Wilkinson cannula. The spillage of dye from the fimbrial end was observed.

**STATISTICAL METHODS:** The data was evaluated using T-test.

**RESULTS:** In our study the most commonly found pathologies were polycystic ovarian disease in 12(17.1%) these included 8(20%) with primary infertility and 4(13.3%) with secondary infertility. Endometriosis was seen in 6(15%) of primary infertility and 4(13.3%) secondary infertility. Hydrosalpinx was in seen in 3(7.5%) cases of primary infertility and 4(13.3%) cases of secondary infertility. However 20(28.6%) of women did not have any abnormal findings.<sup>1</sup>

Pathology	Primary infertility (N=40) (57.1%)	Secondary infertility (N=30) (42.9%)	Total (N=70)
Normal finding	12(30%)	8(26.7%)	20(28.6%)
PCOS	08(20%)	4(13.3%)	12(17.13%)
Tubal block	05(12.5%)	6(20%)	11(15.7%)
Endometriosis	06(15%)	4(13.3%)	10(14.2%)
Hydrosalpinx	03(7.5%)	4(13.3%)	07(10%)
Tubo ovarian mass	02(5%)	2(6.7%)	04(5.8%)
Submucous polyps	03(7.5%)	1(3.3%)	04(5.8%)
Uterine septum	01(2.5%)	0(0%)	01(1.4%)
Uterine adhesion	00	1(3.3%)	01(1.4%)

**Table 1**

**DISCUSSION:** PCOS was seen in 12(17.13%) patients, endometriosis was seen in 10 (14.2%) cases which included 6 cases of primary infertility and 4 cases of secondary infertility. Uterine pathology was seen in 6 patients. These included submucous polyps, uterine septum, uterine synechiae.<sup>2</sup>

Polycystic ovarian disease is one of the most common causes of infertility associated with anovulation, obesity and insulin resistance.<sup>3</sup>

Endometriosis causes infertility due to anatomic distortion, adhesions, poor quality of oocytes and also inflammatory factors. The gold standard for diagnosis is visualization by laparoscopy and biopsy.<sup>4</sup> Among the uterine pathologies polyps, adhesions and septum are easy to treat and can be corrected at same time which adds to the advantage.<sup>3,5</sup>

**CONCLUSION:** This study clearly demonstrates the benefit of hysterolaparoscopy for the diagnosis of primary and secondary infertility. In the same setting procedures like polypectomy, septoplasty, adhesiolysis and cauterization of small endometriotic spots can be performed. The consultant should be prepared to see and treat at same time of the diagnostic procedure.

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