

The Role of Diagnostic Hysteroscopy Evaluation of Female Infertility

Dr. Meghana BV¹, Dr. B S Jodha²

¹3rd Year Post Graduate, Department of OBG, Dr. SNMC, Jodhpur

²Senior Professor, Member of FOGSI, ISCCP, IMS, IMA, ISAR, ISPAT, IUFMB, GESI Department of OBG, Dr. SN Medical College Jodhpur

1. Introduction

Infertility is a growing concern of the society. In India there are approximately 10 - 15% couples are infertile. Identifying the cause of infertility is complex and after a standard evaluation 20- 30% of couples will have no clearly identifiable cause of their infertility [1, 2]

- It has been estimated that using laparoscopy as a standard test have tubal function would reduce the apparent incidence of unexplained infertility from 10% to 3.5% [3]
- Experience has shown that majority of pelvic pathology in infertile women is frequently not well appreciated by routine pelvic examinations and the usual diagnostic procedures. The ability to see and manipulate the uterus, fallopian tubes, and ovaries during laparoscopy has made it an essential part of infertility evaluation. Similarly, visualising the uterine cavity and identifying the possible pathology has made hysteroscopy an equally important tool in infertility evaluation. [3] The question of tubal morphology and patency, ovarian morphology, any unsuspected pelvic pathology, and uterine cavity abnormalities can all be resolved with accuracy at one session. Additionally, hysteroscopic guided biopsy and therapeutic procedures like polyp ectomy, myomectomy, septal resection, and adhesiolysis can be done in the same sitting. [3] This study was undertaken to evaluate the role of diagnostic hystero - laparoscopy (DHL) in the comprehensive work up of infertility, which would help in planning appropriate management.

2. Materials and Methods

This is a retrospective study conducted in Dr. S N Medical College, Jodhpur from May 2023 to October 2023.

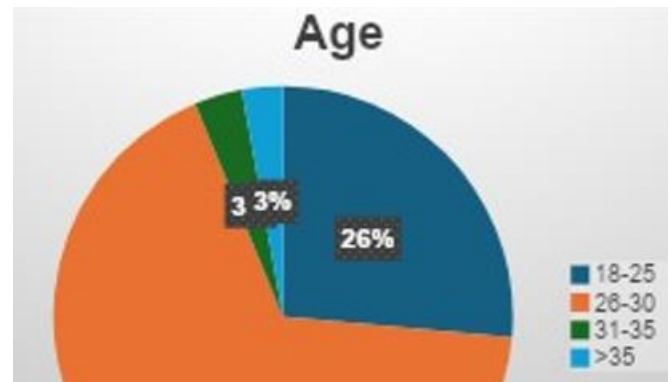
All the infertile females (with normal baseline fertility workup including detailed history taking, clinical examination, ovulatory cycles, hormonal profile, seminogram of partner) who underwent diagnostic hysteroscopy in the above mentioned period were included in this study after informed written consent.

The data collected were demographic factors such as age, type of infertility, married life.

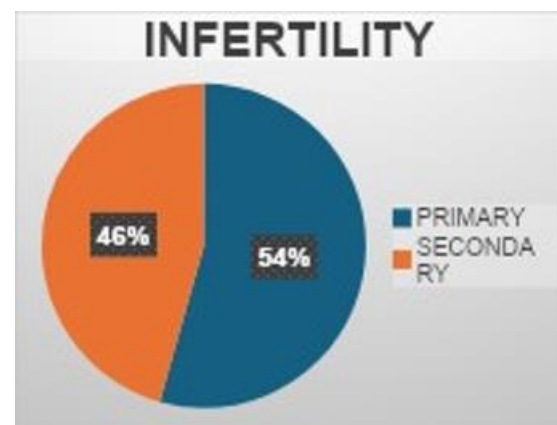
Intraoperative findings such as peritubal, periadnexal and pelvic adhesions, endometriosis, polycystic ovaries etc during laparoscopy and abnormality of cervical canal, uterine cavity, endometrium and bilateral tubal ostium during hysteroscopy were noted

3. Results

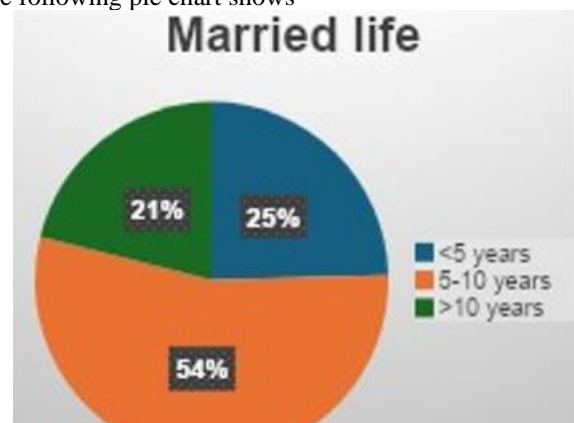
The following pie chart shows the distribution of patients with respect to age



The following pie chart shows the distribution of the patients based on the type of infertility



The following pie chart shows

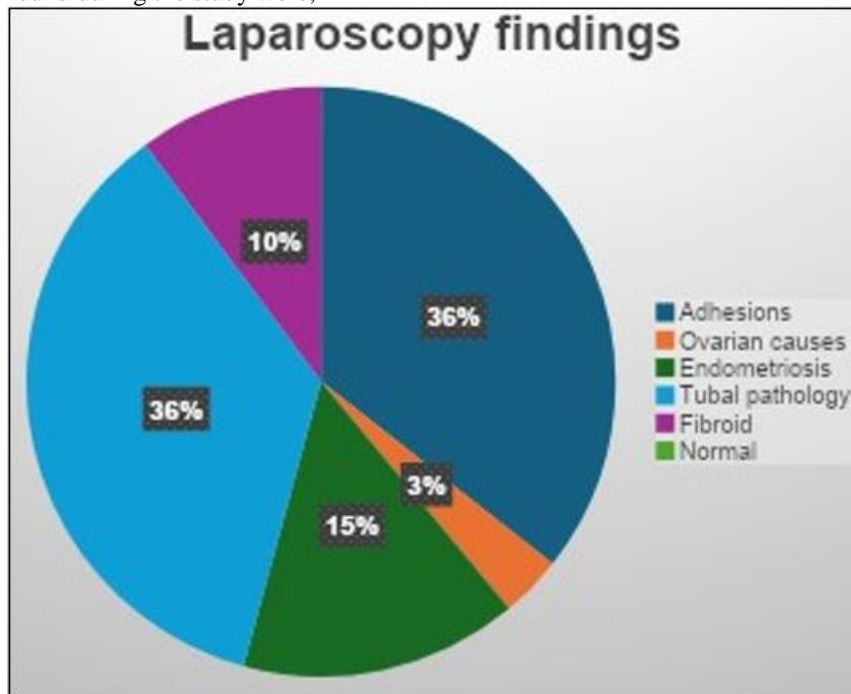


Volume 13 Issue 10, October 2024

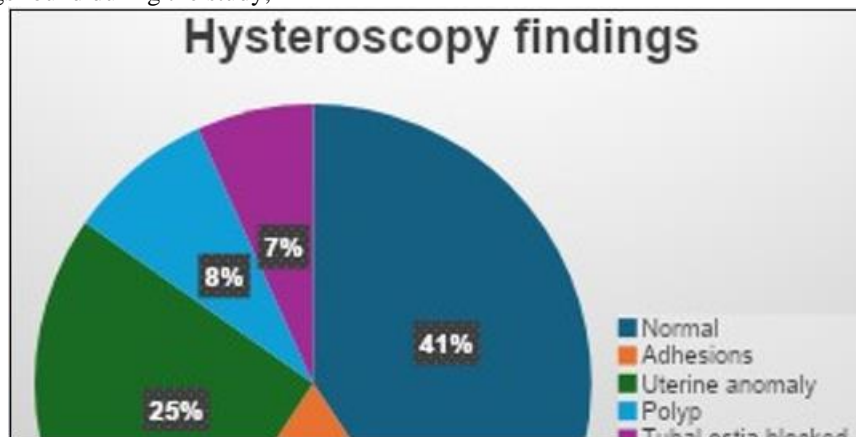
Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

www.ijsr.net

Laparoscopic findings found during the study were,



Hysteroscopic findings found during the study,



4. Discussion

Infertility affects about 10 - 15% of reproductive age couples. The prevalence of infertile individuals is increasing globally.

Tuboperitoneal pathology is responsible for 40 - 50% cases of infertility [5]

- The ability to observe and treatment the uterus, fallopian tubes, and ovaries during laparoscopy has made it a gold standard to evaluate pelvic pathology [6] Similarly, visualizing the uterine cavity and identifying the possible pathology has made hysteroscopy an essential part of infertility evaluation. The abnormalities of pelvic and uterus can resolved in combined hysteron laparoscopy, such as the lesion of tubal morphology and patency, ovarian morphology, and uterine cavity abnormalities at the same time [7]
- Although a diagnosis of septate uterus per se is not an indication for septoplasty, the reproductive performance of women with an uncorrected septum is rather poor (80% pregnancy loss, 10% preterm delivery, 10% term delivery) with most losses occurring in the first trimester

(approximately 65%). Pregnancy outcomes dramatically improved after surgical correction (80% term delivery, 5% preterm delivery, 15% pregnancy loss) [8]

- Dysfunctional uterine contractility interfering with ovum or sperm transport or embryo implantation, and poor regional blood flow resulting in focal endometrial attenuation or ulceration [9]
- The incidence of asymptomatic endometrial polyps in women with infertility has been reported to range from 10% to 32% [10]
- A prospective study of 224 infertile women who underwent hysteroscopy observed a 50% pregnancy rate after polypectomy [11]

Diagnostic hysteron - laparoscopy is a very safe procedure. Other than mild abdominal pain, there were no major surgical or anesthetic complications in any of our patients.

Goldman et al. found that in the absence of findings during an unexplained infertility evaluation, routine laparoscopy was not necessary. The majority of patients who proceed to treatment will become pregnant. However, this study

compared pregnancy outcomes in women with unexplained infertility rather than findings at laparoscopy [12]

Shimizu et al. concluded that diagnostic laparoscopy should be Offered as an option for younger patients who desire spontaneous pregnancy because no significant difference was found in the cumulative pregnancy rate between patients. Proceeding to direct IVF and those doing so after laparoscopy.

In the latter, however, the chance of spontaneous conceptions was higher [13]

5. Conclusion

A myriad of pathologies exist in patients of infertility which remain undiagnosed by the routine workup.

Hysterolaparoscopy is an effective diagnostic tool for evaluation of certain significant pathologies which can usually be missed by other imaging modalities.

Hysterolaparoscopy allows interventions at the same time in form of adhesiolysis, ovarian drilling, tubal cannulation, septal resection etc.

Thus, it is an indispensable weapon in our battle against infertility.

References

- [1] Smith S, Pfeifer SM, Collins JA. Diagnosis and Management of female infertility. JAMA.2003; 290: 176770.
- [2] Practice Committee of the American Society of Reproductive Medicine. Effectiveness and treatment for Unexplained infertility. Fertil Steril.2006; 86 (1): 114.
- [3] Drake T, Tredway D, Buchanan G, Takaki N, Daane T. Unexplained infertility. A reappraisal. Obstet Gynecol. 1977; 50: 644 - 6.
- [4] Bosteels J, Van Herendael B, Weyers S, 'Hooghe DT. The Position of diagnostic laparoscopy in current fertility Practice. Hum Reprod Update.2007; 13: 477 - 85.
- [5] Dyer SJ. International estimates on infertility prevalence and treatment seeking: potential need and demand for Medical care. Hum Reprod.2009; 24 (9): 2379 - 2380.
- [6] Yucebilgin MS, Aktan E, Bozkurt K et al. Comparison of Hydrosonography and diagnostic hysteroscopy in the Evaluation of infertile patients. Clin Exp Obstet Gynecol. 2004; 31 (1): 56 - 58.
- [7] Nayak PK, Mahapatra PC, Mallick J, et al. Role of Diagnostic hystero - laparoscopy in the evaluation of Infertility: A retrospective study of 300 patients. J Hum Reprod Sci.2013; 6 (1): 32 - 34.
- [8] Homer HA, Li TC, Cooke ID. The septate uterus: A review Of management and reproductive outcome. Fertil Steril. 2000; 73: 1 - 14.
- [9] Vollenhoven BJ, Lawrence AS, Healy DL. Uterine fibroids: A clinical review. Br J Obstet Gynaecol 1990; 97: 285 - 98.
- [10] Hinckley MD, Milki AA. 1000 office - based hysteroscopies prior to in vitro fertilization: Feasibility and Findings. JSLS.2004; 8: 103 - 7.
- [11] Shokeir TA, Shalan HM, EI - Shafei MM. Significance of Endometrial polyps detected hysteroscopically in Eumenorrhic infertile women. J Obstet Gynaecol Res. 2004; 30: 84 - 9.
- [12] Goldman MB, MacKenzie TA, Regan MM, Alper MM, Th Ornton KL, Reindollar RH. The role of diagnostic Laparoscopy in couples treated for unexplained infertility in The fast track and standard treatment (FASTT) trial. Fertil Steril.2009; 92: S32 - 3.
- [13] Shimizu Y, Yamaguchi W, Takashima A, Kaku S, Kita N, Murakami T. Long - term cumulative pregnancy rate in Women with unexplained infertility after laparoscopic Surgery followed by in vitro fertilization or in vitro Fertilization alone. J Obstet Gynaecol Res.2011; 37: 412 - 5.