

A Review of hysteroscopy in a private hospital in Jos, Nigeria

Chinedu C.Ekwempu¹, Emmanuel A.Ogbe², Clement Ekere³, Adaobi I.Ekwempu⁴, Amaka N.Ocheke¹

Abstract

Background: Examination of the uterine cavity is an imperative gynaecology for the detection and treatment of intrauterine abnormalities. Hysteroscopy is considered to be the gold standard for this purpose. Identification and subsequent treatment of intrauterine lesions may improve pregnancy rates in In Vitro fertilization (IVF).

Methods: Medical records of patients who had hysteroscopy between May 2016 and April 2017 at Kauna Specialist Hospital were analysed. Indications for hysteroscopy, findings and complications were noted.

Results: A total of 82 hysteroscopies were performed during the period under review. The commonest indication was preparation for IVF in infertile patients (58.1%). Other indications included infertility (27.2%), menorrhagia (9.9%)

and hypomenorrhoea (2.4%). Intrauterine abnormalities were detected in 59.3% Patients. Intrauterine adhesions were found in 30.9% of the patients. Endometrial polyps (13.7%), fibroids (4.9%) and irregular endometrial lining (4.9%) were also observed. A large proportion (42.7%) of patients who had recurrent IVF failure had intrauterine abnormalities.

Conclusion: Hysteroscopy is an invaluable tool in the detection and treatment of intrauterine lesions. Its wider use is advocated in gynaecological practice in Nigeria.

Key words: Hysteroscopy; Infertility; In Vitro fertilization, intrauterine abnormalities

Highland Med Res J 2017;17(2):97-99

Introduction

Hysteroscopy is an endoscopic procedure that visualizes the uterine cavity. Its value in the investigation of infertility has gained increasing popularity over the years with its relative ease of use and reduced invasiveness compared with procedures such as laparoscopy. Its use is thus highly recommended in infertility investigation.^{1,2,3} Uterine factors contribute about 10% of infertility and are usually due to structural abnormalities such as fibroids and adhesions.^{4,5}

In the developing world and in this environment in particular, structural abnormalities such as fibroids, adhesions following previous surgeries and infections are common.³ Previous studies in this environment have reported high diagnostic yield at hysteroscopy with detection of abnormalities in as many as 45% of the patients.³ Implantation of the embryo following embryo transfer in In Vitro fertilization (IVF) is highly dependent on the integrity of the uterine cavity and the endometrium and being able to rule out pathologies is of importance.⁶

We described the indications, findings and complications of hysteroscopy among gynaecology clinic attendees in a private hospital setting in Jos, north central Nigeria.

Materials and Methods

This was a retrospective descriptive study of patients who underwent hysteroscopy at Kauna Specialist Hospital in Jos, Plateau state Nigeria between April 2016 and March 2017. Kauna specialist hospital is a multispecialty hospital which mainly caters for Obstetric and Gynaecologic patients with particular emphasis on infertility. Records of these patients were retrieved and information regarding age, indication, findings at hysteroscopy and immediate postoperative complications were extracted.

All procedures were carried out using a 30° rigid telescope (Olympus) with a 5mm operating sheath which was inserted into the cervical os and advanced into the uterine cavity under direct vision. Occasionally cervical dilatation was required to enable introduction of the hysteroscope. All procedures were performed under aseptic conditions. Conscious sedation (pentazocine 60mg and Diazepam 10mg intravenously) was used for analgesia. Normal saline was employed as the distension medium. All procedures were video recorded in addition to documentation of the findings. The procedures were done on outpatient basis with patients leaving the facility within two hours of the procedure.

Doxycycline capsules 100mg twice daily and metronidazole tablets 400mg 8 hourly for five days respectively were given to the patients for infection prophylaxis. Paracetamol 1g 8 hourly for a day was prescribed for post-operative analgesia. Data was

¹Department of Obstetrics and Gynaecology Faculty of Medical sciences University of Jos, Nigeria ²Department of Obstetrics and Gynaecology, Dalhatu Araf specialist Hospital Lafia, Nigeria ³Department of Obstetrics and Gynaecology Jos University Teaching Hospital Jos Nigeria ⁴Department of Medical laboratory science, Faculty of Medical sciences, University of Jos, Nigeria

All correspondences to:
Chinedu C. Ekwempu
E-mail: cekwempu@yahoo.co.uk

obtained from the theatre records and patients folders, analysed and were presented as proportions.

Results

A total of 82 hysteroscopies were performed during the period under review. One procedure was aborted due to severe cervical stenosis and was not included in the series.

Table 1. Indications for Hysteroscopy

Characteristics	Frequency	%
Indications		
Pre-assessment for IVF	35	43.2
Recurrent IVF failure	12	14.9
Infertility	22	27.2
Menorrhagia	8	9.9
Hypomenorrhoea	2	2.4
Ashermans syndrome	1	1.2
Recurrent miscarriages	1	1.2
Total	81	100
Findings		
No abnormality	33	40.7
Adhesions	25	30.9
Endometrial polyps	11	13.7
Irregular endometrium	4	4.9
Fibroids	4	4.9
Endometritis	2	2.5
Cervical stenosis	1	1.2
Fibrosis	1	1.2
Total	81	100

The mean age of the patients was 39±5.9 years. Patients being investigated for infertility accounted for 27.2% (Table 1).

The majority (87.7%) of hysteroscopies were performed for diagnostic purposes. Only 10 (12.3%) were performed as therapeutic. The Majority (58.1%) of the patients who had hysteroscopy were IVF patients who were either having the procedure for pre assessment (43.2%) or on account of recurrent IVF failure(14.9%). Other indications include menorrhagia (9.9%, hypomenorrhoea (2.4%), Ahsermans syndrome (1, 2%) and recurrent miscarriages (1.2%).Most of the patients (59.3%) had abnormal findings within their endometrial cavities (Table 2). Intrauterine adhesions were present in 30.9% of the patients. Twenty nine (55.2%) of the patients who had hysteroscopic pre assessment prior to IVF had endometrial abnormalities (adhesions). Among the patients who had recurrent failed IVF, 42.7% had abnormalities such as polyps, adhesions and fibrosis within the uterine cavity.

Immediate Post-operative course and Outcome of surgery

There were no postoperative complications and all the patients were discharged home after two hours of observation.

Discussion

A review of hysteroscopy in a private hospital is presented. Hysteroscopy is widely accepted as part of the armamentarium in the evaluation of the uterine cavity in infertility investigation. Its ease of use and safety profile makes it an invaluable instrument in the hands of the gynaecologist in the management of uterine disorders. In IVF, the state of the uterine cavity is an all important factor determining implantation which is a rate limiting step in the success of IVF. Pre assessment of the endometrial cavity has been shown to improve the pregnancy rate in IVF cycles.⁷

The mean age of the patients in this study was 38.7 years. This was similar to other studies that reported a higher incidence of abnormalities in women greater than 38years of age.⁹ Magos et al. did not find any difference in abnormalities when comparing women below and above the age of 38.¹⁰

Findings in this study revealed that about 60% of the patients had abnormalities within the uterine cavity. Other studies revealed abnormalities ranging from 7.2% to 64%.¹¹ Intrauterine adhesions accounted for the majority of abnormalities found. This may be due to the high incidence of pelvic infections and scarring from previous myomectomies. It is worthy of note that some patients in the series had multiple endometrial abnormalities. Uterine fibroids are common in this environment with a rise in the incidence above the age of 30years. A study from the south Eastern part of Nigeria reported 80% of the women presenting with fibroid were between the ages of 31 and 40 years⁸.

A significant number (42.7%) of patients with recurrent IVF failure were found to have various intrauterine abnormalities. This was similar to a study by Flavio et al where abnormalities were found in 45% of the patients.¹² They observed significant implantation rates following treatment of these patients. Other studies failed to show a significant improvement in implantation rates following hysteroscopy for recurrent IVF failure¹³. Among the patients who had hysteroscopic pre assessment for IVF, abnormalities were observed in more than half(55.2%) of the patients. This was similar to a study by Filominamila et al where abnormalities were found in 59.4% of the patients. They however did not observe a significant improvement in pregnancy rates.¹³ A review of randomized control trials showed accumulated evidence that hysteroscopy significantly improved implantation rates in patients who had recurrent IVF failure and concludes that performing a

hysteroscopy itself had a positive predictive value for achieving pregnancy.⁷

Complications associated with hysteroscopy are rare with figures ranging from 0.28% (Jensen et al) to 1.2%.^{14,15} This is attributable to the fact that unlike most endoscopic procedures, general anaesthesia is hardly ever required, it is a relatively simple skill to acquire hence proficiency is easily attained. No complication was recorded in the series here reviewed.

The limitations of this study include the fact that it is a retrospective study with its attendant setbacks and the study population is relatively small which may limit generalizability. However, this study provides a background for further studies to explore hysteroscopy among gynaecology patients in our environment.

In conclusion, the common indications for hysteroscopy from our study were for pre-assessment for IVF, infertility and recurrent failed IVF. The most common finding was intrauterine adhesions and there were no postoperative complications. Hysteroscopy is a safe useful tool for assessing women in the gynaecology clinic and we advocate its wider use in our environment.

References:

1. Revel A, Shushan A. Investigation of the infertile couple: hysteroscopy with endometrial biopsy is the gold standard investigation for abnormal uterine bleeding. *Hum Reprod.* 2002;17:1947-1949
2. Sagchi P., Basant L. A prospective comparative study between hysterosalpingography and hysteroscopy in detection of intrauterine pathology in patients with infertility. *Obstet. Gynaecol.* 2003;29:33-37
3. Otubu J A, Olarewaju R S. Hysteroscopy in Infertile Nigerian Women. *Afr J Med Sci* 1989; 18:117-120
4. Pritts E.A. Fibroids and infertility: a systematic review of the evidence. *Obstet Gynecol Surv.* 2001; 56: 483-491
5. Somigliana E., Vercellini P., Daguati R., Pasin R., DeGiorgi O., Crosignani PG. Fibroids and female reproduction: a critical analysis of the evidence. *Hum Reprod Update.* 2007;13: 465-476
6. El-Mazny A., Abou-Salem N., El-Sherbiny W., Saber W. Outpatient hysteroscopy: a routine investigation before assisted reproductive techniques? *Fertil. Steril.* 2011; 95: 272-276.
7. Makrakis E.; Pantos K. The outcomes of hysteroscopy in women with implantation failures after in-vitro fertilization: findings and effect on subsequent pregnancy rates. *Current Opin Obstet Gynecol.* 2010;22: 339-343
8. Ekine, A., Lawani L.O., Iyoke C.A., Jeremiah I., Ibrahim I.A. Review of the Clinical Presentation of Uterine Fibroid and the Effect of Therapeutic Intervention on Fertility. *American Journal of Clinical Medicine Research.* 2015;3: 9-13.
9. Dicker D, Goldman JA, Ashkenazi J, Feldberg D, Dekel A. The value of hysteroscopy in elderly women prior to in vitro fertilization-embryo transfer (IVF-ET): a comparative study. *J In Vitro Fert Embryo Transfer.* 1990; 7: 267-270.
10. Magos, A. Al-Khoury, P. Scott, et al., "One stop fertility clinic," *J Obstet gynaecol.* 2005;25:153-159
11. Martin K., Jean-Luc M., Chadi Y., Serge U., Jacky N. Office Hysteroscopy for Infertility: A Series of 557 Consecutive Cases. *Obst. Gynecol. International*, vol. 2010, Article ID 168096, 4 pages, 2010. doi:10.1155/2010/168096
12. Flavio GO, Vicente G A, Michael PD, Dimitri D, Zsolt PN, Roger A. Uterine cavity findings and hysteroscopic interventions in patients undergoing in vitro fertilization-embryo transfer who repeatedly cannot conceive. *Fertil Steril* 2003;80:1371-1375
13. Filominamila L, Oronzo C, Stefano B, Giusepina L, Alfredo C, Giuseppe S. Office hysteroscopy in an in vitro fertilization program. *Gynaecol Endocrinol* 2008;24:465-469
14. Jansen FW, Vredevoogd CB, Ulzen K, et al. Complications of hysteroscopy: A prospective, multicenter study. *Obstet Gynaecol* 2000;96:517-520
15. Okohue JE, Onuh SO, Akaba GO, Shaibu I, Wada I, Ikimalo JI. A 3 year review of hysteroscopy in a private hospital in Nigeria. *World J laparosc surg* 2009;2:26-29