

TOLERABILITY OF HYSTEROSCOPY UNDER LOCAL ANAESTHESIA

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ABSTRACT

Objective: To assess the tolerability of hysteroscopy amongst patients, when performed under local anesthesia.

Design & Duration: Quasi experimental study from January to December 2006.

Setting: Dept. of Gynae. & Obstetrics, Sindh Govt. Lyari General Hospital and AI-Hafeez Medical Centre, Karachi.

Patients: Patients attending the Outpatient Clinics with bleeding per vagina were randomly selected.

Methodology: After the clinical work-up and taking consent, all patients were given injection diclofenac sodium half an hour prior to the procedure. After preparing and positioning the patient, 10cc of injection Bupivacaine was given for para cervical block at 3 and 9 o'clock positions. The uterine cavity was distended with normal saline. Hysteroscopy was performed and the findings noted. Pain scoring was done by visual analogue scale. The condition of the patient was monitored during and after the procedure; they were kept under observation for four hours. Tolerability of the procedure was assessed by pain scoring and the presence of complications, and the results analyzed.

Results: During the study period 113 patients underwent hysteroscopy for abnormal uterine bleeding. The procedure was performed successfully in 98.2% patients without any complications, while 1.8% patients experienced transient vasovagal attack. The procedure was painless in 52.2% patients; 40.7% patients had mild pain (score <3) and were reassured, whereas 7.1% patients had moderate pain (score 3-5). Only 3.5% cases required analgesia for pain control. All patients remained haemodynamically stable during and after the procedure.

Conclusion: Hysteroscopy is very well tolerated under local anaesthesia by our local population.

KEY WORDS: Hysteroscopy, Local Anaesthesia, Uterine bleeding

INTRODUCTION

Hysteroscopy is widely accepted as the golden standard for direct visualization of the endometrial cavity¹. Hysteroscopy was first introduced by Pentelini for the visualization of the uterine cavity, which is a reliable and reassuring way of identifying uterine pathology. Diagnostic hysteroscopies were performed in the Outpatient setting for over 100 years ago, although the safety and accuracy of the procedure was questionable at that time.

General anaesthesia was employed initially. The miniaturization of the modern hysteroscope and its wide spread use, resulted in its conversion from an inpatient to an outpatient procedure. It is tolerated well as an outpatient's procedure with high success rate²⁻⁴. In an analysis of the 17000 outpatient hysteroscopies, Clark et al failed to identify any direct procedure related complications⁵, with high accuracy for diagnosis of endometrial carcinoma.

Procedures performed under general anaesthesia are subjected to the morbidity associated with it. The frequency of anaemia in patients admitted with uterine bleeding is high, and the correction of anaemia is a prerequisite for general anaesthesia. The use of local anaesthesia obviates the need for general anaesthesia, thus reducing its risks and the hospital stay. Performing hysteroscopy as an outpatient procedure reduces the risks of general anaesthesia, besides being cost effective and convenient for the patients. This study was conducted

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to evaluate the tolerability of hysteroscopy under local anaesthesia in our setup.

PATIENTS & METHODS

This study was conducted in the Departments of Gynaecology & Obstetrics at Sindh Govt. Lyari General Hospital and Al-Hafeez Medical Centre from January to Dec. 2006 on patients who presented with abnormal uterine bleeding. After the clinical workup, they were informed about hysteroscopy in detail, and their consent was taken. Unmarried and nulliparous women were excluded from the study.

On the day of the procedure, the patients were advised to take light breakfast. Injection diclofenac sodium was given half an hour prior to the procedure. Patients were kept in the dorsal position with knees and hips abducted, and the vulva and vagina were cleaned. Posterior vaginal wall was retracted with Sim's speculum. Anterior lip of cervix was held with the Volsellum forceps and then 10cc of bupivacaine was injected in the cervix at 3 and 9 o'clock positions. The Sims speculum was then removed and the already assembled hysteroscope was introduced into the vagina, and the ectocervix visualized. The tip of the hysteroscope was kept at the external os and the endocervical canal was visualized. The uterine cavity was distended with normal saline and then viewed. In the presence of blood clots floating in the uterine cavity, the saline was drained and the cavity refilled. The hysteroscope was moved around inspecting the fundus, walls of the uterus, tubal ostia and cornual ends. The hysteroscope was withdrawn and curettage performed.

Blood pressure and pulse was monitored throughout the procedure and any complications noted. Pain scoring was done using the visual analogue scale. Patients were kept under observation for four hours. All information was entered on a performa. The data thus collected was analyzed on computer using the SPSS version 11.

RESULTS

A total of 113 women were selected randomly for hys-

Table II. Parity of the patients

Parity	Number	%
1-3	44	39.0
4-6	52	46.0
> 6	17	15.0
Total	113	100.0

Age Group	Number	%
< 40 years	47	41.6
40-50 years	55	48.7
> 50 years	11	9.7
Total	113	100.0

Table III. Age distribution

teroscopy, from those presenting with abnormal uterine bleeding in the outpatient departments. Out of them 108 were premenopausal and the rest postmenopausal. Their ages ranged from 18-90 years, mean age being 40 years (Table I). Majority of patients were multiparous (Table II) and tolerated the procedure very well.

Most (52%) patients did not complain of any pain during the procedure, while 41% patients had mild and 7% moderate pain (Table III). Most patients needed counseling and reassurance; only 3.5% needed additional analgesia (opiod analgesics) for relief of pain. Hysteroscopy was performed without any complication in 111 (98.2%) patients, only 2(1.8%) patients experienced a transient vasovagal shock. During the follow-up 98.2% patients were satisfied with the procedure; 1.8% showed their preference for general anesthesia.

DISCUSSION

Hysteroscopy is an invaluable diagnostic tool for women with suspected uterine pathology. It is superior to conventional blind procedure of endometrial sampling. Tolerability of a procedure can be assessed by observing pain and co-operation of the patient during the procedure and the frequency of postoperative complications. Hill et al⁶ reported outpatient hysteroscopy as feasible and easily tolerable procedure. In their series only 30% patients required local anaesthesia.

In 1998 Ashraf⁷ reported that majority of their patients tolerated the procedure well, only 15% required local and 8% general anaesthesia. Contrary to previous reports,

Table III. Pain Score of the patients

Pain (Score)	Number	%
None	59	52.2
Mild (<3)	46	40.7
Moderate (3-5)	8	7.1
Total	113	100.0

Chinese women found hysteroscopy a painful procedure even when performed with complete atraumatic technique by experienced surgeons, necessitating use of some form of anaesthesia⁸.

Local anaesthesia has given variable results in various studies. It has been used in the form of either intracervical or paracervical instillation with topical gel or spray. Toth et al found paracervical anaesthesia as a safe method for hysteroscopy and transcervical surgery due to its minimal invasivity⁹. Transcervical instillation of 5 ml of 2% lignocaine into uterine cavity before surgery failed to give pain relieve in a prospective randomized double blind, placebo-controlled trial¹⁰.

In a prospective randomized study comparing topical anaesthesia for office hysteroscopy local anaesthesia was found to have beneficial effect in pain relieve with prilocain plus lidocain cream giving better results as compared to lidocain spray¹¹. Toth et al⁹ used paracervical anaesthesia in surgery and only 4.6% patients felt discomfort. In our study local anaesthesia was used, 52.2% patients had no pain during the procedure, while 40.7% had mild and 7% moderate pain on the visual analogue scale.

While performing hysteroscopy para-cervical injection of local anesthetic is a painful procedure. The application of tenaculum to hold cervix and introduction of Sim's speculum causes pain and discomfort to the patient. Vaginoscopic approach eliminates use of these instruments. In this procedure hysteroscope is inserted into the vagina with saline flow. The portio vaginalis is visualized and external cervical os retracted. The hysteroscope is then guided through the internal os into the uterine cavity. Cicinelli et al¹² described successful insertion in 99.5% of cases when vaginoscopic hysteroscopy was performed with 3.5mm hysteroscope. It is ideal for out-patient setting as it causes minimal discomfort to the patients¹³. In the current study hysteroscopy was performed with the conventional method. With the use of vaginoscopic approach even fewer patients would have pain and discomfort. Diagnostic hysteroscopy has a significantly lower (1.3%) complication rate¹⁴, hence it is a safe procedure for evaluation of the uterine cavity.

In this study the procedure was performed successfully in all the patients. Less than 5% actually complained of the embarrassing position and the wakeful state. Majority (98.2%) claimed that the procedure was acceptable to them without the general anaesthesia. In 2004 Morgan et al reported that 90% of the patients found hysteroscopy acceptable without general anaesthesia¹⁵. Nagele et al in their data of 2500 hysteroscopies found

it feasible in an over whelming majority of patients with a high detection rate of pathology¹⁶.

Hysteroscopy in an ambulatory setting appears to have an accuracy and outpatient acceptability equivalent to inpatient hysteroscopy under general anaesthesia¹⁷. No major complication was encountered during this study. Only 2(1.8%) patients suffered from vasovagal shock which was managed successfully.

CONCLUSION

Diagnostic hysteroscopy can be performed as an outpatient procedure under local anaesthesia. In the light of our experience and various other studies it is concluded that hysteroscopy is essentially an outpatient procedure with good patient compliance. It should be considered as the procedure of choice for the evaluation of abnormal uterine bleeding.

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