Editorial

Hysteroscopy : Past, Present and Future

Surg Capt (Mrs) P Tarneja^{*}, Lt Col BS Duggal⁺

MJAFI 2002; 58 : 293-294

Key Words : Hysteroscopy diagnostic and therapeutic

Hysteroscopy is a technique by which we can peep into the cavity of the uterus through the cervix. Before the advent of a hysteroscope, the standard procedure of blind dilatation and curettage (D&C) was used along with hysterosalpingography (HSG) for the evaluation of the uterus [1,2]. Bozzini in 1805 first peered into the urethra of a living subject and this was the beginning of endoscopy which has now advanced into a modern endoscopic surgery of today. The credit of performing the first successful hysteroscopy goes to Pantaleoni in 1869. He evaluated a 60 year old lady with therapy resistant bleeding and detected a polypoid growth in the uterus on hysteroscopy, which was cauterised with silver nitrate [3]. It was David, who performed hysteroscopic examination using a cystoscope with an internal light and lens system.

Von Midulicz, Radecka and Freund used saline as a rinsing system with separate channels for inlet and outlet [4] and Edstrom and Ternstrom used 32% Dextran 70 as a distension medium and found it superior to other distension medium because of its property of high viscosity and immiscibility with blood [5]. Various workers used different distending medium to improve the visibility and ensure safety, especially, in operative procedures. The credit of using 1.5% glycine instead of dextran for operative endoscopy goes to none other than Jaques Hamou, a French surgeon. An ideal distension medium which is totally physiological and which will not cause fluid overload or electrolyte disturbances is yet to be found. Hysteroscopy can be done for both diagnostic and therapeutic indications. Some of the common indications for hysteroscopy have been in the evaluation of abnormal uterine bleeding, infertility, recurrent pregnancy losses, uterine anomalies and suspected Asherman's Syndrome.

Traditionally, the evaluation of infertility is done by performing HSG and endometrial biopsy. Problems associated with these methods have prompted workers to consider hysteroscopy as an adjunct to these methods for exploring the uterine cavity visually, thus increasing the precision and accuracy of diagnosis and treatment of intrauterine pathologic conditions that

may account directly or indirectly for the reproductive failure of the woman [6,7,8]. As per Barbot Jacques, hysteroscopy is a direct approach to the uterine cavity enabling us to see the shape, size, contour and colour of any abnormality. The vascular patterns can be studied and analysed. So much so that the functional aspect of the endometrium can also be inferred [9], as also the infections of the fallopian tube that can be detected by sampling with cytobrush during hysteroscopy. These visual and tactile perceptions are integrated to make a presumptive diagnosis short of pathologic examination. Hysteroscopy does not supplant other diagnostic procedures, rather it complements them. Hystero-graphy remains a valuable screening procedure while hysteroscopy can be performed in case of abnormal hystero-graphs [10], though of late hysteroscopy has emerged as a primary screening procedure. Before undertaking advanced assisted reproductive technique (ART) procedures like in vitro fertilisation (IVF) and embryonal transplant (ET), a base line hysteroscopic evaluation of the uterus is mandatory.

The improvement in optics, video system, safe and effective distension media and reduced telescope size has led to increased acceptance of hysteroscopy by both physicians and patients when symptoms require direct intra-uterine examination. There is a growing interest in doing the hysteroscopic examination of the uterine cavity as an out patient procedure. Its sensitivity and specificity in detecting uterine abnormalities are recognised [11,12]. The use of office hysteroscopy to assess abnormal uterine bleeding may replace procedures associated with a greater risk and expense. Information has been accumulating regarding its favourable outcome so that it can be recommended as an efficient alternative to the blind hospital-based curettage.

Many women attending hospital gynaecology clinics with menorrhagia, eventually undergo hysterectomy. This is one of the most commonly performed major operations. Although mortality from hysterectomy

^{*}Professor and Head, Department of Obstetrics and Gynaecology, Armed Forces Medical College, Pune - 411 040, ⁺Classified Specialist (Obstetrics and Gynaecology) Military Hospital, Shillong.

tomy is low, postoperative morbidity is common. In recent times hysteroscopic transcervical endometrial resection has been introduced as an alternative option. The ability to make accurate diagnosis and the advent of operative hysteroscopic procedures to treat various pathological conditions has been the hallmark in reducing the number of unnecessary hysterectomies.

Operative hysteroscopy is not the preferred method of treatment of Asherman's syndrome, intrauterine septa, removal of foreign bodies, polyps and submucous myomas. Fertility enhancing hysteroscopic procedures have revolutionised the management of uterine factor in infertility. Hysteroscopic procedures like lysis of intra uterine adhesions, metroplasty with resection of uterine septum, electroresection of fibroids and polyps, cornual cannulation and removal of foreign bodies have given very gratifying results.

As any other surgical procedure, hysteroscopy is not without complications but however, 99% of these complications are preventable and all of them are treatable. Hysteroscopic surgery undoubtedly has a place in gynaecology. Although endoscopic surgery today, is considered as a specialised field, it will over a period of time, become part of routine gynaecological surgery and hence go a long way to raise the over all standard of gynaecological surgery.

References

1. Brooks PJ, Serden SP. Hysteroscopic findings after unsuc-

cessful dilation and curettage for abnormal uterine bleeding. *Am J Obstet Gynaecol* 1988;158:1354-7.

2. Vallie E, Zupi E, Marconi D. Outpatient diagnostic hysteroscopy. *J Am Assoc Gynaecol Laparosc* 1998;5:397-402.
3. Pataleoni DC. On endoscopic examination of the cavity of the womb. *Medical Press Circular* 1869;8:26-7.
4. Von Midulicz, Radecki F, Freund A. Ein neues hysteroskop and Sein praktische Anwendung in der Gynakalogie, *Zeitschrift fur Geburtshilfe and Gynakalogie* 1927.
5. Edstrom K, Ternstrom I. The diagnostic possibilities of a modified hysteroscopic technique. *Acta Obstetrica et Gynaecologica Scandinavia* 1970;49:327-30.
6. Pellicer A. Hysteroscopy in infertile woman. *Obstet Gynaecol Clin North Am* 1988;15 1:99-105.
7. Valle RF. Hysteroscopy in infertile evaluation. *Fertile steril* 1980;137,4:425.
8. Valler RF. Hysteroscopy. *Curr Opin Obstet Gynaecol*. 1991;3 3:422-6.
9. Inafuku K. Hysteroscopy in mid luteal phase of human endometrium for evaluation of functional aspect of endometrium. *Nippon Sanka Fujinha Gakkan Zasshi*. 1992;44 1:78-83.
10. Taylour PI, Gomel V. Diagnostic laparoscopy : Laparoscopy and Hysteroscopy 1993;99.
11. DeWitt A. Hysteroscopy : an evolving case of minimally invasive therapy in gynaecology. *Health Policy* 1993;23:113.
12. Downes E, al-Azzawi F. How well do perimenopausal patients accept outpatient hysteroscopy? Visual analogue scoring of acceptability and pain in 100 women. *Eur J Obstet Gynaecol Reprod Biol* 1993;48:37.

MEDICAL PHILATELY

Readers are invited to contribute to this column with stamp (s) and write up