

How safe is hysteroscopic surgery?

Our experience in the first 78 cases

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Summary: In this report we have considered the effectiveness of operative hysteroscopy for the treatment of endouterine pathologies in 78 patients admitted in our department from June 1991 to April 1994.

Key words: Hysteroscopic; Hysteroscopic surgery; Complications.

INTRODUCTION

Operative hysteroscopy is a valid and effective surgical endoscopic technique for the treatment of endouterine pathologies such as synechiae, septa, myomas and submucosal polyps, and removal of foreign bodies^(1, 2, 3). The use of the resectohysteroscope has further extended the range of possible applications, such as endometrial ablation and also reduced the time required for various operations^(4, 5). Unfortunately, it must also be remembered that, if badly used, operative hysteroscopy is not without its dangers^(6, 7).

The complications can be either intra-operative or delayed. The first include

excessive bleeding during the operation, perforation of the uterus, overloading of the hematic circuit, anaphylactic reaction or other specific problems from distending medium, anesthetic risk and, when electrosurgery is used, intestinal or bladder thermal lesions^(8, 9, 10, 11, 12, 13). Delayed complications include utero-adnexal infections and the spontaneous uterine rupture which may occur in pregnant patients previously subjected to hysteroscopic surgery, especially if complicated by uterine perforation^(14, 15, 16). Broad ligament abscess, though very rare, has also been reported⁽¹⁷⁾.

The causes for both intra- and post-operative complications are principally due to the inexperience of the operator, the result of the erroneous belief that endoscopic surgery is simpler and easier than traditional surgery. We think that hysteroscopic surgery should be performed principally by doctors who have a long and extensive experience of diagnostic hysteroscopy. Diagnostic experience allows both speedy orientation of the optics and accessories in the uterine cavity

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and also determination of the technical modalities with which the different pathologies should be tackled. This naturally leads to a greater rapidity in the operation, less possibility of favouring any complications, and better results.

In this report we have considered the effectiveness of operative hysteroscopy for the treatment of some endouterine pathologies, taking into account that we began operative hysteroscopy after having performed more than 2300 diagnostic hysteroscopies carried out over a period of 6 years from 1985 to 1991. We have considered the difficulties arising during intervention and we report our experience on resulting side-effects and complications.

MATERIAL AND METHODS

From 1985 through to December 1993, 2945 diagnostic hysteroscopies were performed in our department as an outpatient procedure. From June 1991 to April 1994, 78 women underwent operative hysteroscopy by electrosurgery (Table 1). Their ages ranged from 29 to 74 years with the average age being 47.

The majority of patients required resectohysteroscopy because of irregular heavy menses and because of post-menopausal bleeding.

Thirty-three submucous fibroids, twenty-five endometrial polyps, five congenital uterine malformations, two cases of endouterine bone tissue, seven endouterine adhesions and six women with abnormal uterine bleeding only were treated.

The diagnosis was based on the ultrasound examination, both transabdominal and transvaginal, and hysteroscopy. Pre-operative endometrial sampling using a Novak's curette was performed on all patients. An Ansaldo equipment with two probes of 3.5 and 5 mHz for transabdominal and transvaginal echography respectively were used. The diagnostic hysteroscopy was performed with Hamou's 1 microcolpohysteroscope as an outpatient procedure without any kind of anesthesia. The biopsies were carried out on the areas where the endometrium was higher or irregular. For hysteroscopic surgery a Hamou's resectohysteroscope from Karl Storz Industry (Germany) with a 8.7 millimetres in outer diameter was used.

In all patients after ripening a cervical canal with Hegar's dilators up to 10 millimetres,

Table 1. - *Number of cases treated according to the pathologies.*

Pathology	Cases	Treatment
Myoma	33	Hysteroscopic miomectomy (in three cases miomectomy and endometrial ablation)
Polyps	25	Hysteroscopic electroresection
AUB	6	Endometrial ablation
Adhesions	7	Adhesiolysis
Uterine malformations	5	Hysteroscopic electroresection of the septum
Uterine Bone tissue	2	Hysteroscopic electroresection

as a means of uterine distending a liquid medium such as urological solution (sorbithol-mannitol) was used. For continuous irrigation and suction of the uterine cavity a roller pump (hysteromat) was used. Many electrodes of different shapes, and dimensions were utilized according to the pathology. For the endometrial ablation in one patient a loop was used while in the other 8 cases roller-balls or roller bars from 1 to 3 millimetres were employed indifferently according to the endouterine area: in the utero-tubal corner we used the 1 millimetre roller-ball, while on the remaining parts the 3 millimetre roller-ball or roller-bar. On twelve patients in fertile age a therapy with GnRH analogues was carried out for two months before intervention. For the diagnosis of uterine malformations hysterosalpingography and laparoscopy were also used. The duration of the operations was from 5 to 60 minutes, while the quantity of liquid used varied from 200 ml to 8 liters. The maximum diameter of the endouterine formations was 4 centimetres. Modern videorecording systems were used to file the images.

RESULTS

Before treatment normal endometrial histology was seen in 67 out of 78, while in 11 out of 78 the sampling was inadequate, all because of an atrophic endometrium.

One patient with a fibroma had an incomplete resection but was lost at follow-

up. One patient in fertile age who underwent ablation with loop developed Asherman's syndrome after the treatment with consequent oligomenorrhea and severe dismenorrhea.

Three uterine perforations occurred and two out of three needed laparotomy with suture of the lesion because of profuse bleeding.

All the women but three were satisfied with the results.

CONCLUSIONS

Although there are many publications, on the reliability of the resectohysteroscopic technique for resolving various endometrial pathologies, we feel obliged to emphasize the necessity for long diagnostic hysteroscopic training before proceeding to hysteroscopic surgery. It is also necessary to study the patient in advance, from both clinical and instrumental viewpoints, with echography and hysteroscopy in order to evaluate the uterine structural characteristics, and therefore select only those patients who really require surgery.

In patients with previous inflammatory pelvic disease there is a risk of post-operative return of the infection.

In addition, it is of fundamental importance to sterilize the instruments thoroughly and comply with the most rigorous rules of asepsis during the operation.

We consider that there is no reason to intervene by hysteroscopic means if we are in the presence of a uterus with many fibromata both submucous and intramural, or when there is a cervical fibroma that can make the introduction of resectoscope through the cervical canal very difficult. Moreover it is convenient to subject the patients in fertile age to a pre-operative treatment of two months with GnRH analogues, since this reduces the thickness of the endometrium, tending to less bleeding, and making the operation easier. Otherwise it is convenient to intervene

soon after menstruation when the endometrium is still proliferative with scanty vascularization.

With regard to a malformed uterus we think it is important to evaluate carefully the real necessity for operating on a uterus with a partial septum, which, if it has a large base, is often hard to distinguish from a curved uterus. Two perforations occurred in patients presenting this malformation in spite of the fact that one was being operated under laparoscopic control.

Considering cases of the onset of Asherman's syndrome following inappropriate use of the loop with consequent myometrial exposure and diffused hemorrhage, we do not think endometrial electroablation with loop is the best treatment for patients still in fertile age and menstruating.

Endometrial glands eventually remaining under the scar and invisible because of the presence of synechiae, may bleed and cause severe dysmenorrhoea. Besides, it is impossible to pre-evaluate the future behaviour of the endometrial glands remaining, which might undergo malignant transformation. Synechiae may delay this bleeding and thus the diagnosis of endometrial cancer.

On the contrary hysteroscopic endometrial ablation using the roller bar or the roller ball is very safe and simple, with a positive cost-effective rate.

In conclusion operative hysteroscopy in carefully selected indications provides good results; a long training in diagnostic hysteroscopy is fundamental before facing the operative technique since, as many reports confirm, there may be complications.

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