

Suggested Office Hysteroscopy Holding Technique to Minimize Delicate Instrument Bending

K. Emre KARAŞAHİN, İbrahim ALANBAY, Murat DEDE, Müfit Cemal YENEN

Ankara, Turkey

OBJECTIVE: Office hysteroscopy is valuable in diagnosing and treating intrauterine pathologies. But the expensive instruments used for operative office hysteroscopy are delicate and prone to be damaged by bending. We are suggesting a method to increase the life time of the equipment and decrease the expenses.

STUDY DESIGN: 43 patients undergoing office hysteroscopy for endometrial polyps and submucous myomas in Gülhane Military Medical Academy in January 2008 - April 2008 are included in this study and applied the new holding technique suggested by Dr. Emre Kardeşahin. Departmentally available instruments are used.

RESULTS: All the office procedures were successfully completed, without a single defect on the scissors and forceps used for the operative office procedures.

CONCLUSION: The technique explained in the text increases the life time of the equipment, and therefore decreases the costs of operations.

Key Words: Office hysteroscopy, Holding technique, Spare parts, Maintenance, Expense

Gynecol Obstet Reprod Med;14:2 (99 - 101)

Introduction

There is a general consensus that hysteroscopy is the current gold standard for evaluating intrauterine pathology. In ambulatory setting it appears to have an accuracy and patient acceptability equivalent to inpatient hysteroscopy under general anesthesia.¹

Although many literature exists on office hysteroscopy,^{2,3,4} we could not find a text describing the hand positions during the office hysteroscopy that could help to minimize the instrument damage and provide full control of the equipment.

Although the office hysteroscopy equipments are practical and efficient in both diagnosing and treating the intrauterine pathologies, the scissors and forceps are vulnerable to bending. As the office hysteroscopy used more frequently, - In our institution, we perform about 230-250 office procedures a year-, the costs associated with damaged instruments also increase.

In general, the operating sheaths and the telescopes are carefully handled by the operators and they are structurally

durable. But mechanical instruments, especially scissors are usually roughly handled during the operations, mostly in an attempt to quickly finish the operation.

The continuous gaze of the operator at the video screen during the operation and the lack of experience with the instrument increases the chance of bending easily harming these delicate mechanisms and causes expensive, time consuming and hard to repair malfunctions. The operational life time of these expensive equipment is decreased. Purchasing these instruments for a government hospital is plenty of paperwork and bureaucracy. Therefore we observed the office hysteroscopy operations to find a way to increase the life time and to decrease the bending and breaking of the equipment.

Material and Method

When we came up with the idea of a new holding technique, initially suggested by Dr. Emre Kardeşahin, which would help to decrease bending, we designed the study, keeping it as simple and practical as possible. We tried our holding technique on 43 patients undergoing office hysteroscopy for endometrial polyps and submucous myomas in Gulhane Military Medical Academy in January 2008 - April 2008. The inclusion criteria was irregular menses resistant to previous medical treatment, suggesting an endometrial polyp or submucous myomas. Those are the operations requiring most scissors and forceps movements. Exclusion criteria was the history of a previous uterine surgery, the universal contraindications to hysteroscopy, surgery for the septum resection, as this did not require too much scissors manipulation, and any

Department of Obstetrics and Gynecology Gülhane Military Medical Academy, Ankara

*Adress of Correspondence: K. Emre Kardeşahin
General Tevfik Sağlam Cd.
Etlik, Ankara
dremrekardeşahin@hotmail.com*

Submitted for Publication: 27. 05. 2008

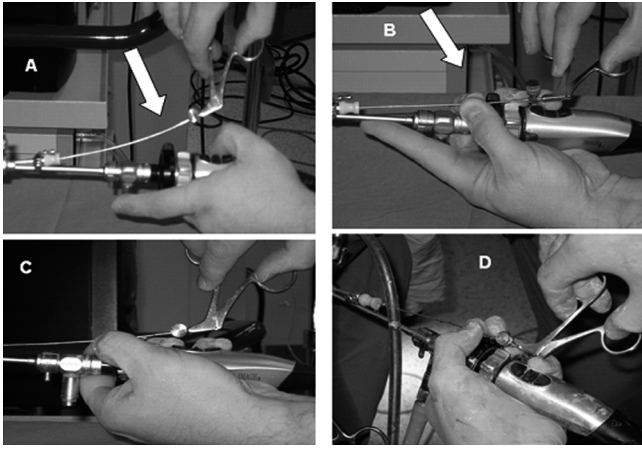
Accepted for Publication: 26. 06. 2008

objection of the patient to the method described.

All of the patients were operated at the same operating theatre, using the same equipment (Karl Storz 26161BN continuous flow system), and by the same operating team. Written and verbal consents of the patients undergoing office hysteroscopy were obtained.

During the procedure, 13 patients did not want/required general anesthesia. 30 patients required superficial anesthesia.

The technique described below, as suggested by Dr. Emre Karasahin, is illustrated in picture 1.



Picture 1: illustrates the suggested method of office hysteroscopy holding, "the Karasahin hold", to minimize the bending of the instruments. Pic 1 A shows the bending (arrow) of the equipment during the usual interventions. Pic 1 B illustrates the suggested holding technique, described in the text in detail. Arrow points to the camera and optic junction where the proximal end of the instrument is fixed by the fingers. Pictures 1C & Fig 1 D are two different views of the operators hands during pivoting the scissors.

It is based on the principle that, if one holds the proximal end of office scissors or forceps close to its handle and pivots it on its long axis, while moving the sheath, camera and the instrument as one piece, it is not possible to bend these instruments.

For this:

1) The operator holds the operating sheath on the left palm. The index finger points forward parallel to the operating sheath. [Pic. 1A] This grip helps the operator to know exactly where in space is the operating sheath stereotactically.

2) The thumb and middle (or ring) finger encircles the instrument at the junction of the camera and the telescope. At this point the tips of the thumb and the finger(s) come in contact, and hold the shaft of the mechanical instrument, therefore stabilizing the proximal end [Pic. 1B] . Holding the shaft here firmly prevents excessive bending.

3) The right hand does the rotational and the cutting/grasping movements pivoting at this point. The unit is held and moved as a single instrument. This increases the overall control of the operator on the instrument. [Pic. 1C,1D]

4) The operator then keeps his gaze on the video screen, since the brain stereotactically knows the position of the instrument and continues to the operation as required. A sitting position on an adjustable height operating stool is advised for the comfort of this grip, rather than a standing position. Patients position should be adjusted according to the comfort of the operator, we suggest that the vaginal introitus should be slightly higher than the level of the left hand of the operator. In standing position this is not always possible and the operator has to bend to do surgery. The position of the monitor should be arranged so that the operator does not have to turn his head to look at the monitor.

Results

We used this holding technique in 43 patients undergoing hysteroscopy, (34 endometrial polyps and 9 submucous myomas) without any bending of the instruments.

No surgical complications were encountered.

Before the described technique, we had to replace 3 scissors and 1 forceps due to the unintended bending and consequent breaking in 6 months on 105 patients. The forceps seemed more durable since they require less movement.

Discussion

There has been many diagrams and pictures of office hysteroscopy equipment, some suggesting the holding positions.^{2,3,4} But a grip to increase the life time of the mechanical instruments, mainly the scissors and forceps, have not been encountered by the authors. The described holding position may initially feel awkward for the operator, but the learning period and adaptation is rapid. We suggest this holding technique to be used by the operators to decrease the operating costs and to increase the life time of the office hysteroscopy equipment. It should be also be remembered that the operator comfort is very important to prevent the fatigue and hurrying of the operator, since those are factors that increase mistakes during every operation.

Hassas Aletlerin Bükülmesini En Aza İndirmek İçin Ofis Histeroskop Tutuş Tekniği Önerisi

K. Emre KARASAHİN, İbrahim ALANBAY, Murat DEDE
Müfit Cemal YENEN

Ankara, Türkiye

Ofis histeroskopi intrauterin patolojilerin teşhis ve tedavisinde

değerli bir metoddur. Ancak operatif ofis histeroskopi için kullanılan pahalı aletler narin yapıda olup kullanım sırasında bükülüp hasar görmeye meyillidirler. Biz bu aletlerin kullanım süresini artırıp giderleri azaltmak için bir metod öneriyoruz.

Ocak 2008 ve Nisan 2008 arasında Gülhane Askeri Tıp Akademisi'nde endometrial polip ve submüköz miyomlar için ofis histeroskopiye alınan 43 hasta bu çalışmaya dahil edilmiş ve Dr. Emre Kardeşahin tarafından önerilen ofis histeroskopi tutuş tekniği uygulanmıştır. Anabilim dalımızda mevcut cihazlar kullanılmıştır.

Bütün ofis prosedürleri başarı ile sonuçlandırılmış ve bütün işlemlerde hiç bir ofis histeroskopi makası veya biopsi forsepsi hasarıyla karşılaşılmemiştir. Yazıda tarif edilen yöntem kullanılan ekipmanın kullanım süresini uzatarak ameliyat başına maliyetleri azaltmaya yardımcı olmuştur.

Anahtar Kelimeler: Ofis histeroskopi, Tutuş tekniği, Makas, Biopsi forsepsi, Bakım, Maliyet

References

1. Bakour SH, Jones SE, O'Donovan P, Ambulatory hysteroscopy: evidence-based guide to diagnosis and therapy. Best Practices And Research Clinical Obstetrics and Gynaecology, 2006; 20: 953-75
2. Bettocchi S, Selvaggi L, Office Hysteroscopy. Endo-Press, Tuttlingen Germany 2002;403-3
3. Mencaglia L, Hamou JE Manual of hysteroscopy -diagnosis and surgery- Endo-Press, Tuttlingen Germany 2001; 409-2
4. Pabuccu R. Diagnostik ve Operatif Histeroskopi, Atlas Kitapçılık 2002;32-3