

The endoscopic management of uterine synechiae. A clinical study of 78 cases

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Rezumat

Abordul endoscopic al sinechiilor uterine. Studiu clinic pe 78 cazuri

Sinechiile uterine sunt o patologie usor de diagnosticat prin histeroscopie, care ofera si metoda cea mai buna de tratament. Acest studiu analizeaza valoarea metodei.

Material si metode: Am selectat 78 cazuri diagnosticate cu sinechii intr-o perioada de 3 ani in serviciul nostru. In cazurile in care un gest operator a fost necesar, el a constat din metode mecanice (impingere, foarfece, pensa) sau rezectie electrica, pentru sinechii si patologii asociate (fibrom, polip). Urmarirea a fost de 3-6 luni pentru paciente cu amenoree, si de 6-12 luni pentru cele cu infertilitate.

Rezultate: In cele 78 cazuri, diagnosticul de internare a fost de sinechie (44%), cicluri neregulate (19%), amenoree (16%), infertilitate (15%). Histeroscopia a apreciat extensia care a fost in majoritatea cazurilor in stadiu moderat. Din paciente, 60% au necesitat gesturi terapeutice, iar criteriile de succes au fost: vizualizarea ambelor orificii tubare (70%), cicluri normale clinic (91%), si sarcini (41% din pacientele internate pentru infertilitate). A fost o complicatie prin perforatie uterina, intr-un sindrom Ashermann, fara a necesita alte gesturi ulterioare. Principalul tratament post-histeroscopie a fost cel hormonal, in toate cazurile. In concluzie, desi histeroscopia permite diagnosticul precis al sinechiilor, tratamentul trebuie efectuat doar de specialisti cu experienta.

Cuvinte cheie: sinechie, histeroscopie, endoscopie uterina, infertilitate

Abstract

Intrauterine adhesions (IUA) are easily diagnosed by hysteroscopy, which also offers the main method for treatment. In this study, we analyze the value of the method.

Material and methods: We have selected 78 cases of IUA diagnosed during a 3 year period. In cases when interventions were needed, we used mechanical techniques (pushing, scissors, forceps) or electrical resection, addressed to synechiae and other concomitant pathologies (fibroids, polyps). The follow-up ranged between 3-6 months (for amenorrheic patients) and 6-12 months for infertility patients.

Results: In our 78 cases the presenting diagnostic was synechiae (44%), irregular cycles (19%), amenorrhea (16%), infertility (15%). Hysteroscopy allowed the IUA extension evaluation, and the majority of cases had early stage disease. From them 60% had therapeutic gestures, with success criteria being: visualization of both tubal ostium- in 70%, clinical normal cycles (91%) and pregnancy in 5 cases (41% from patients addressed mainly for infertility). There was one perforation in an Ashermann syndrome case, with no further surgical gestures needed. The main postoperative treatment was hormonal treatment, in all cases. In conclusion, although hysteroscopy allows easy diagnostic for IUA, therapeutic gestures should be done in severe cases by experimented specialists.

Key words: intrauterine adhesion, infertility, endoscopy, hysteroscopy

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Introduction

Intrauterine adhesions (IUA) also named synechiae are important and yet underdiagnosed conditions that affect the uterus. They result in infertility and abnormal menstrual cycles (especially hypo or amenorrhea).

IUA may result from traumatic removal of the endometrium, especially during curettage. It is estimated that 15-40% of postabortum complications. (1,2,3)

There are several classifications of IUA, and the most accepted is the one from European Society of Hysteroscopy (now European Society of Gynecologic Endoscopy). Another one is from the American Fertility Society. They both base the staging on imagistic findings, and hysteroscopy is the most reliable method of evaluation.

Hysteroscopy offers also the possibility of treatment of IUA, better than the previous hormonal medical ones, or through hysterotomy, as described in older textbooks. Also cavity dilatation by the use of small curette were blind procedure carrying a high risk of perforation. (4)

We present our experience in using the uterine endoscopy in the diagnostic and the treatment of uterine synechiae.

Material and methods

This study was carried out in Elena Doamna Hospital of Obstetrics and Gynecology of Iasi, Romania. We analyzed retrospectively the cases where hysteroscopy described IUA, and where therapeutic gestures were performed.

From a 3 year period, we selected 78 cases. The inclusion criteria regarded:

- Complete data regarding age, clinical diagnostic, type and extension of adhesions;
- If there were therapeutic gestures performed using the hysteroscope, in 61% of cases, data regarding what method (mechanical, electrical) was used and other parameters useful to evaluate the technical difficulties, complications, etc.

The hysteroscopy was performed by 2 specialists from our hospital, using a diagnostic hysteroscope of 4 mm, with a 6.5 mm sheath (with continuous flow and working channel of 7 Fr). The instruments used in operative hysteroscopy were forceps and scissors. In some cases, a monopolar resectoscope was used.

The distension media used in our cases was NaCl 9‰, or dextrose 5% when electrical energy was employed. The patient was under IV sedation in most cases, but when resectoscope was used (or longer interventions foreseen) inhalatory anesthesia was used.

The therapeutic gestures regarded IUA, but also polyps and fibroids type 0, if found.

The follow up in cases where infertility was the main complaint was done by clinical re-evaluation at 6 and 12 months. In case where hypo-amenorrhea was the main complaint, the follow up was at 3 to 6 months.

The data were statistically assessed using the usual computer software (Excel MS).

Results

There were 78 cases in which hysteroscopy described IUA, that could be included in our study. From them 40% were just diagnostic hysteroscopy's, while 60% had a therapeutic gesture also

Regarding the clinical data, we noticed:

- Patients' age: median value of 32, with CI 95= 34.2 ±1.7
- Presenting main diagnostic: (Fig. 1)
 - supposed synechiae (44%);
 - irregular cycles (19%);
 - amenorrhea (16%);
 - infertility (15%);
 - fibroid (6%).

Regarding the IUA extension, we described at hysteroscopy the followings:

- Extension of synechiae
 - < 1/3 of cavity 56%
 - 1/3-2/3 of cavity 33%
 - More than 2/3 (complete) 11%
- Position of synechiae:
 - Cervical 23%
 - Corporeal 32%
 - Fundal 32%
 - Total 13%
- Tubal ostia visualization:
 - Bilateral 47%
 - Unilateral 28%
 - None 25%

Therapeutic gestures were performed in 60% of cases, mainly by mechanical methods (mechanical push using hysteroscope, using also hydrodissection, forceps and/or scissors)

The success was defined by::

- visualization of both tubes, in 70% of cases (proven by HSG);
- Clinical evaluation with normal cycles in 91% cases;
- Pregnancy: 5 cases at 6 to 12 months of follow-up (meaning 6% of total, and 41% of infertile cases).

No complication was mentioned, except for a perforation during Ashermann syndrome in a severe case. The patient was kept in hospital under observation for 48 hours, and no further intervention was needed.

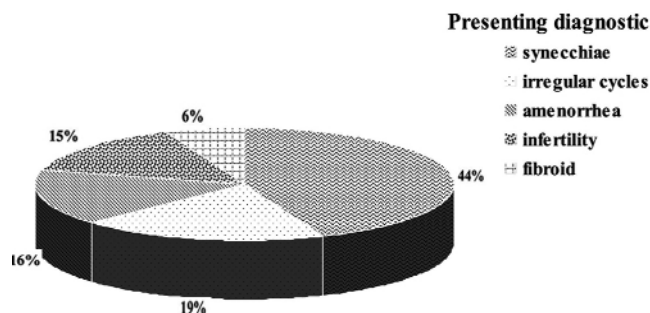


Figure 1. Presenting diagnostic

The postoperative treatment consisted in 2 to 3 months of hormonal treatment, consisting of estrogens associated with progesterone- either as combined regimen, or as two-phase oral contraceptive. In 20 of our 47 cases we prescribed IUD insertion. (42,5%), for a period of 4 to 6 months. This alternative was not used in the 12 cases which presented especially for infertility.

Although there are studies in literature regarding the use of a Foley catheter in the uterus post-hysteroscopy, we only tried that in 3 cases and for 4-6 days, so we could not appreciate its value. (5)

Discussion

The synechiae were first described by Fritsch in 1894, secondary to postpartum curettage. It was Ashermann in 1948 that described in 1948 the etiology, symptoms and radiological characteristics of complete amenorrhea after curettage, which has been called since the Ashermann syndrome.

At present, the main etiology remains postabortion and postpartum curettage. As shown by Salzani in 2007 (6), 36.7% of postabortion curettage produce some form of IUA. Increasingly, cases are associated now with myomectomy both abdominal and hysteroscopic, removal of septa, and any other intrauterine surgery. The post-traumatic hypo estrogenic endometrium is responding to aggression by forming bands of connective tissue, which in time may organize, and create even dense fibrous structures difficult to differentiate from the uterine wall. (6)

The diagnostic is difficult. The incidence of IUA is 1.5% of all hysterosalpingographies, and this method plays an important role still, but the diagnostic value and false positive results limit its use.

Ultrasound has a low diagnostic value. In certain conditions (e.g., after surgical curettage), a constantly thin endometrium through the cycle associates with infertility and IUA. (7). The method of saline infusion (also called sonohysteroscopy) consisting of injecting a quantity of fluid in the cavity under ultrasound, improves the value of conventional ultrasound, as shown by different studies, but does not replace hysteroscopy. (8, 9)

Hysteroscopy demonstrates not only the location, shape, and size of the adhesions but also their nature. These can be mucosal, fibrous, or myometrial.

This gross appearance reflects the therapeutic possibilities. Recent adhesions are mucosal and easy to separate. One year after the initial trauma, the adhesions become fibrous and the cleavage plane no longer exists, making the treatment much more difficult in case of extended scars, especially when the anatomic landmarks, which are the fundus and the tubal ostia, have disappeared and cannot guide the dissection. (10)

Regarding the treatment, hysteroscopy remains the most important tool to do the lysis of IUA.

Other methods discussed in literature consists of balloon dilatation under fluoroscopic guidance, which is discussed in a recent article by Chason et al 2008. (11) In this case report, they proposed a uterine dilatation for a supracervical IUA due

to a previous cesarean section, which resulted in positive outcome at the hysterosalpingography follow up.

Nevertheless, reports of hysteroscopic interventions are predominant in literature. (12)

Perforation remains one of the most serious complication. We had one case in our series of 47 patients, which is higher than other authors reported: Yu et al, with 0.9%(12)

A method for guidance during adhesiolysis was studied by different authors. They proposed: laparoscopic simultaneous observation, with transillumination being as a marker of imminent perforation; fluoroscopically guidance;

As for preventing the relapse of endometriosis, the hormonal treatment remains the most recommended by specialists. In literature other methods were also proposed, like: amnion graft, hyaluronic gel (13), (14), post-hysteroscopy Foley (5) or Nelaton catheter placed intrauterine (15). All of these solutions should be, however, considered only adjuvant to hormonal therapy, while IUD is not proven in recent studies as having any benefit.

In conclusion, IUA are diagnosed and treated by hysteroscopy. The difficulty represented by the distorted uterine cavity may induce high risk of complications, and therefore the adhesiolysis procedure should remain a technique used by qualified specialists, in those cases of large extension and presumed long evolution of lesions, which realize in general Ashermann's syndrome.

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