

Histeroscopy Procedure on Cervical Stenosis - Check Before Cheque

Eddy Hartono

Department of Obstetric and Gynecology, Faculty of medicine, Hasanuddin University. Makassar. South Sulawesi.

Elected International Society for Gynecological Endoscopy (ISGE)

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+62 816254905

Abstract

Indonesia is the fourth most populous country in the world with population in 2017 reached 261 million people. Perfitri reported that in 2012, blockage was the main common cause of infertility, regarding identified for 12.5 percent of women who underwent IVF. Most of causes of infertility are such as blockage, ovulatory dysfunction, diminished ovarian reserve, cervical abnormalities and endometriosis. A 44 years old woman Para 1 Abortus 1, came to us after several FSH shots and failed IUI procedures. Then we performed hysteroscopy to diagnose and treat the patient. The hysteroscope 3.5 mm sheath couldn't be inserted into internal cervical os. Then we tried with the smaller sonde and we couldn't managed to penetrate the uterine cervix. At the next step, we did adhesiolysis by sharp using scissors. After the hysteroscope entered the cervix lumen, the cervical polyps were appeared and well visualized. After we did polypectomy, adhesiolysis and dissection by scissors, the hysteroscope smoothly could be inserted through the cervix, relayed visualization for next investigation to whole area. Diagnostic hysteroscopy helps in identifying the hidden etiology of infertility so that a therapeutic intervention can be initiated, by avoiding unnecessary empiric medical treatment that costly, considering that fertility treatments are generally not covered by health insurance. Check before receive the "cheque".

Keywords : Cervical Stenosis, Histeroscopy Procedure, Infertility

Introduction

Indonesia is the fourth most populous country in the world with population in 2017 reached 261 million people. So at this time in Indonesia, many research and attention are devoted to the effort to decrease fertility. This causes a lack of data collection on infertility rates in Indonesia. Perfitri reported that in 2012, blockage was the key cause of infertility identified for 12.5 percent of women who underwent IVF. Most of causes of infertility are such as tubal blockage, ovulatory dysfunction, diminished ovarian reserve, cervical abnormalities and endometriosis. The cervical stenosis is one of many unexpected causes of infertility. Stenosis of the uterine cervix is the pathological narrowing of uterine cervix. In spite of it is an uncommon but it is also potential cause of female infertility, whether if it directly or indirectly. In some cases in 2005, Pabuccu R et al. find that three patients with cervical stenosis who underwent IVF-ET cycles were classified as "difficult," failed to conceive with previous ET attempts. So they did an intervention to made tract in the cervical, it was performed with operative hysteroscopy.

Case Presentation

A 44 years old woman Para 1 Abortus 1, came to our hospital with a problem with her uterine cervical. She was not sure of that, but she told us that she was diagnosed by a doctor 10 months ago after trying several FSH shots and IUI procedures but failed. There was a history about her previous pregnancy. She was pregnant 32 weeks of pregnancy 10 years ago, delivered with IUPD helped by midwife. Five years later, she got miscarriage at 12 week of gestation, and she had curettage which was done at hospital.

The history of menstruation was normal, but in the last 6 months it was slightly different, with more dark colored stain, slightly out and menstruation becomes more prolonged. In last month, the menstrual period lasts only for 2 days as a spotting. Patients had her own pregnancy test, but the results were negative. Patients denied the presence of abdominal pain, bleeding during sexual intercourse or abdominal enlargement. In last year, the patient followed the IUI program for pregnancy. She had FSH shots for 4 times. But when the patient were inseminated, during the process, the catheter could not enter and pass through the

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porcio. Even then we tried with the help of uterine sonde, the catheter still could not pass through. Then the patient underwent diagnostic hysteroscopy to determine the cause. From hysteroscopy, we found cervical stenosis and cervix polyps.

During perioperative, hemoglobin patients is 9.7 g / dL, Leukocyte at 9,000, platelet count was $273 \times 10^3 / L$, and the hematocrit was 28.4%. We also administered misoprostol 200 mg per vaginal 10 hours before surgery.

Physical Examination

Patient was 55 kg weight, 158cm high, with normal range of vital signs. Her systemic examination was within normal limit. In abdominal examination, we didn't find any abnormality. There was no scar on the abdomen, and the uterine was unpalpable. In vaginal examination revealed a very small cervix with mild os stenosis. The vagina was normal. Uterus was also normal, soft and regular, with little restricted mobility. Fornices were tender. We didn't find blood or any abnormal mucus in vagina. So, a provisional diagnosis of suspected cervical stenosis was made. The urine hCG level test was negative. Pap smear showed no sign of malignancy. Ultrasonography of abdomen and pelvis were performed; however, report suggested the diagnosis of suspicion of cervical stenosis. Uterus with endometrial line were noted, no cyst or uterine mass.

On Operation

In this case, diagnosis criteria of internal cervical stenosis were based on the difficulty of passing of hysteroscope 3.5 mm sheath into internal cervical os, while the necessity for cervical dilation to facilitate hysteroscope passing as well as the surgeon's judgement. Then we did adhesiolysis by scissors. After the hysteroscope entered the cervix lumen, the cervical polyps were appeared and well visualized. Then by using semi-rigid straight scissors 5 Fr, we cut the polyp at it base. Whole body of the polyp itself removed by scissors, while scraped at the bottom of the polyp and did dissection as well in the same time. After polypectomy, adhesiolysis and dissection by scissors, the hysteroscope smoothly inserted through the cervix. Next, the investigation proceeded into the uterine cavity. The endometrium looks healthy, the internal ostia of both tubes appears normal proved by air bubbles traversing the tubal ostia. After that, before finishing the surgery, the smallest catheter were paired in the uterine cavity, and maintained for 5 days to prevent synechia or recurrence. Duration of operation approximately 30 minutes, estimated total blood loss of about 3 mL. Before the patient transferred to the post-anesthesia recovery unit, she was alert and vital sign was normal. She came home on the next day and we give oral antibiotics and pain killer.



Figure 1. Cervical Stenosis

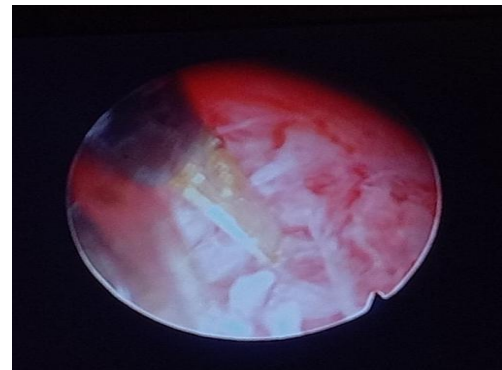


Figure 2. Adhesiolysis



Figure 3 Air Bubble



Figure 4. Polyps

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Discussion

Diagnosis of cervical stenosis can also be established by the inability to pass a 2.5 mm Hegar dilator through the cervical os⁽³⁾. Physical examination may reveal a palpable mass or enlarged uterus⁽⁴⁾. Additionally, diagnosis of any congenital malformation causing secondary hematometra is supported by pyelography and/or laparoscopy^(1,3,4).

In present study, diagnosis criteria of internal cervical ostia stenosis among female infertile patients were based on hardly passing of hysteroscope 3.5 mm sheath into internal cervical ostia, the necessity for cervical dilation to facilitate hysteroscope passing as well as doctor's concept^(3,5,6).

In previous history of pregnancy, the patient had experienced pregnancy until aterm but unfortunately IUD, then experienced miscarriage. Curettage were done after that. Since then, patient never got pregnant again. Like we discuss previously, so many things cause cervical stenosis including as sequelae of electrocautery, cryotherapy, conization, amputation of the cervix may affect sperm migration. The scar tissue from it can interfere with the production of cervical mucus. Sometimes, surgery that caused the scar tissue involved the removal of cervical tissue, and that further limits cervical mucus production that affect sperm migration and survival. Synechiae in the canal and Asherman Syndrome as sequelae of postpartum or post abortus curettage may likewise affect sperm migration. Laceration, scarring, distortion, congenital elongation of cervix, displacement, incompetence, acute retroversion may affect fertility^(7,8).

Our patient developed oligomenorrhea due to cervical stenosis. The menstruation blood passed the stenosis due to the growing polyps of cervix. From other studies, cervical stenosis may result from obstruction with a polyp, neoplasm or fibroids^(7,9). In the other hand, present study shows no any significant more presence of polyps and myoma in patients who had cervical stenosis⁽¹⁰⁾

Management planning of a cervical stenosis using hysteroscopy includes optimizing the surgical environment, performing vaginoscopy and "no-touch" hysteroscopy, and revision of the cervical canal using micro scissors, micro graspers, or a cutting loop electrode. Partial cervical canal excision to aid in hysteroscopy access should be reserved in women who are not interested in future pregnancy or those who are postmenopausal. Although these techniques are demonstrated in an outpatient hysteroscopy setting, they can be adapted for use in an operating theater^(11,12)

Hysteroscopy will tell you that there always suspected a tube was open when they saw air bubbles traversing the tubal ostia. Studies had measured cul-de-sac fluid after a hysteroscopy as a proxy to flexible plastic catheter into each tubal ostium⁽¹³⁾

After completing the hysteroscopy and the intra uterine catheter removed on day 5, due to the patient is still expecting pregnancy, we schedule the IUI procedure after two normal menstrual cycles of the patient so we can be sure that there is no problem at the hypothalamic-pituitary-ovarian axis, normal uterus and equally important is no recurrent cervical stenosis. The result of anatomic pathology was endocervix polyps with non atypical simplex endometrial.

We do find it interesting that all women who achieved pregnancy after ET within 90 days of polypectomy had an ongoing pregnancy, while there were 4 losses (3 missed abortions, 1 chemical pregnancy) in the group that had ET \geq 90 days after polypectomy. Prospective studies looking specifically at the 60-day timeframe may help clarify the effect of timing of ET after hysteroscopic polypectomy⁽¹⁵⁾

Conclusion

Now we know that diagnostic hysteroscopy helps in identifying the hidden etiology of infertility so that a therapeutic intervention can be initiated, by avoiding unnecessary empiric medical treatment for ovulation induction. Even better diagnostic laparoscopy also should be held for complete identifying any anatomical problems in uterine. Given that fertility treatments are generally not covered by health insurance, it will always be costly and the costs we estimated will clearly place constraints on the ability of many individuals to access treatment. That's why we need to make sure the mean cause of the infertility before we start the treatments. Check before receive the "cheque". With the correct identification of etiology, this can lead us to more targeted therapeutic plans including earlier utilization of assisted reproductive technology and not to waste time considering woman biological clock are limited.

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