



CASE REPORT

Treatment of Intrauterine Adhesions



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Case Introduction

In 2023, the 42 year old patient sought medical care due to secondary infertility, without any associated symptoms. She had regular menstrual cycles every 28 days, lasting 5 days. She had not used any contraceptive methods for 2 years.

Case Presentation

The patient denied any comorbidities. Among her surgical history, she reported having had a hip prosthesis and uterine curettage. She had one previous pregnancy which ended in an early miscarriage.

Exams

On the physical exam, she was in good general condition with no abnormalities. The speculum exam revealed no abnormalities. On the bimanual examination, the cervix was fibroelastic, closed and painless upon mobilization. The uterus was intrapelvic, with preserved mobility and the adnexa were not palpable.



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In November 2023, complementary exams were performed to investigate secondary infertility.

Male factor evaluation showed no abnormalities. Female factor screening, lab tests showed thyroid function, prolactin, luteinizing hormone (LH), follicle-stimulating hormone (FSH), and estradiol (E2) within the expected reference values for her age. A pregnancy test (Beta-HCG) was negative. Serologies were negative and blood typing/Rh factor was A+. Breast ultrasound and transvaginal ultrasound showed no significant findings. Hysterosalpingography was performed (Figure 1). The exams concluded that there is a Cotte test bilaterally visible in the right image. Additionally, there are two intrauterine columns that did not allow contrast passage, suggesting intrauterine adhesions.



Figure 1. Image of Hysterosalpingography

In March 2024, the patient was referred to a specialized gynecological video-endoscopy service, for an evaluation and management for the case. It was decided to perform a diagnostic hysteroscopy for further investigation.

The exam was performed in an outpatient setting, without anesthesia, using saline solution as the distension medium. The tubal ostia were identified bilaterally, confirming that the cavity being examined was the uterine cavity and not a false passage. The uterine cavity was of usual size and shape, with proliferative endometrium. The presence of two dense intrauterine fibrous bands were noted and were suggestive of Grade 3 synechiae according to the classification of the European Society of Gynecological Endoscopy (Figure 2).



Figure 2: Intrauterine Bands identified in diagnostic hysteroscopy.



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Treatment

Since the patient was presenting with infertility, it was decided to perform mechanical excision of the adhesions using scissors and forceps from the Bettocchi system, followed by intrauterine insertion of anti-adhesion gel.

The procedure was performed in May 2024, without anesthesia and in an outpatient setting with infusion of saline solution. The tubal ostia were visualized bilaterally again as well as the presence of intrauterine adhesions described in the diagnostic hysteroscopy.

Next, the adhesiolysis procedure was initiated using Bettocchi system scissors (Figure 3). Despite the intrauterine bands being dense and thick, no significant bleeding resulted from cutting the thick adhesions with the scissors.

After mechanical adhesiolysis and anatomical restoration of the uterine cavity, 10mL of **Oxiplex/IU[®]** (FzioMed, San Luis Obispo, CA, USA), a dual polymer gel composed of carboxymethylcellulose and polyethylene oxide, was applied to prevent the formation of intrauterine adhesions. The gel was inserted through the working channel of the hysteroscopic sheath, slowly, after removing the saline solution from the uterine cavity. The gel was inserted into the cervix and uterine cavity while the hysteroscopy system was being removed (Figure 4).

The patient had no complications in the postoperative period and was advised to undergo a new diagnostic hysteroscopy, to assess the uterine cavity after 90 days.

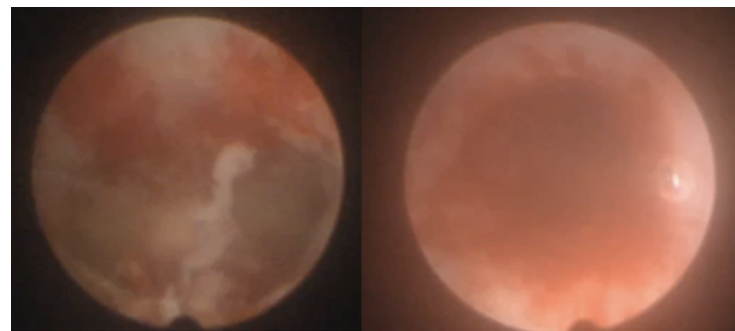
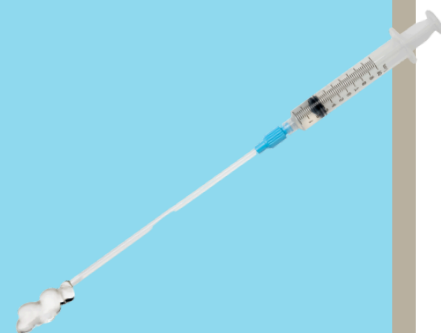


Figure 4: **Oxiplex/IU** gel in the uterine cavity.



Figure 3: Mechanical resection of adhesions performed via hysteroscopy



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Post-Procedure

The patient underwent a follow-up diagnostic hysteroscopy 12 weeks after the procedure (Figure 5). The follow-up exam showed proliferative endometrium, without the intrauterine bands previously visualized in the preoperative exam. **There were no residual adhesions or other macroscopic abnormalities identified.**

Therefore, the chosen, treatment proved to be effective and the patient will continue infertility treatment.

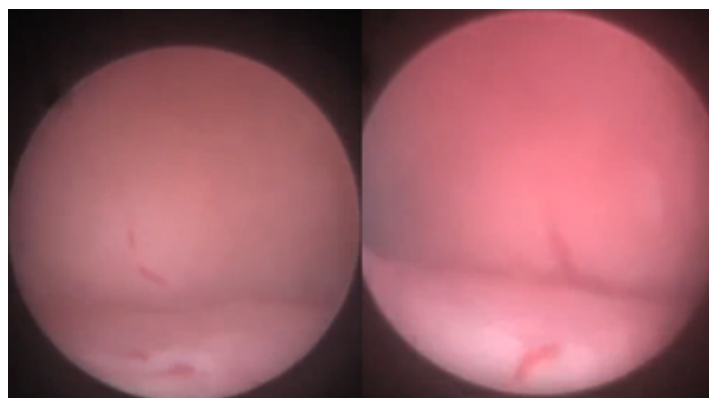


Figure 5: Second look after 12 weeks.

Discussion

Intrauterine adhesions are defined as fibrous bands formed between opposing walls of the uterus which can lead to consequences for women's health, such as infertility, menstrual pattern changes, and obstetric complications. In some cases, it is asymptomatic, making its prevalence difficult to find in current literature. However, it is emphasized that up to approximately 90% of diagnosed cases are associated with curettage procedures and puerperal and post-abortion dilations.

Conclusion

Intrauterine adhesions should be considered a differential diagnosis for infertility, especially in cases where there is an associated risk factor, such as undergoing intrauterine procedures like uterine curettage. In these cases, treatment is indicated with the gold standard being hysteroscopic adhesiolysis under direct visualization.

In the immediate postoperative periods, the use of **Oxiplex/IU** gel is a valid alternative to be considered to prevent the formation of new adhesions after adhesiolysis.