



## CASE REPORT

### Hysteroscopic Adhesiolysis

Using Oxiplex/IU® to Prevent Adhesions



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#### Case Introduction

In March 2024, a 38-year-old female, who was hypertensive and diabetic, without addictions or allergies, presented to our office. She was receiving insulin therapy, metformin and amlodipine with a desire for pregnancy.

#### Case Presentation

In 2019, secondary amenorrhea began, with an absence of menstruation for 1 year, followed by sporadic bleeding over the following years. The last vaginal bleeding occurred on January 29, 2023. In the first consultation, she reported a history of Polycystic Ovary Syndrome, and prior to 2019, she had regular, but prolonged cycles (approximately 40 days). She was unable to become pregnant for 7 years despite not using contraception. No previous history of intrauterine curettage or other surgeries.

#### Exams

The physical examination was within normal limits. During the gynecological examination, the speculum examination found no changes. The vaginal examination noted a fibroelastic cervix that was painless upon mobilization, and non-palpable adnexa.

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In May 2024, laboratory tests were performed to investigate secondary amenorrhea. Thyroid function test, prolactin, luteinizing hormone (LH), follicle-stimulating hormone (FSH), estradiol (E2) within the expected reference values for age and a negative pregnancy test (Beta Hcg). She presented a diagnostic hysteroscopy from 2020, which showed "an enlarged uterine cavity, regular contours, presence of an amorphous mass affecting the fundal region up to the middle 1/3 of the cavity" – the possibility of an intrauterine septum or synechiae was questioned. A biopsy was performed, showing "fragments of proliferative endometrium".

A diagnostic hysteroscopy was performed (Figure 1 and Figure 2), which demonstrated: "Uterine cavity: adhesions were seen on the left ostium, central region of the cavity, occupying almost the entire cavity. The adhesions joined the anterior wall to the posterior wall."

The transvaginal ultrasound showed: "130cc, endometrial echo of 1.1cm and ovaries without changes." An MRI of the pelvis was also performed, with no abnormalities.

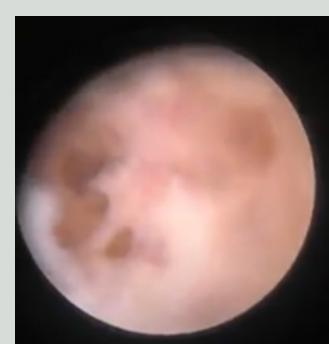
## Treatment

A surgical hysteroscopy was then performed for adhesiolysis. The procedure took place in April 2024, without complications. Hysteroscopic scissors were used to remove the adhesions (Figure 3a and 3b), guided by an abdominal pelvic ultrasound (Figure 4).

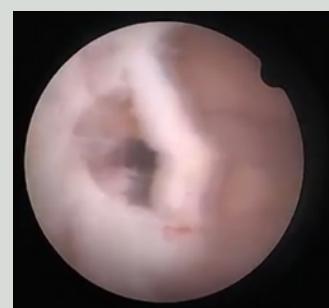
After mechanical adhesiolysis and anatomical restoration of the uterine cavity, 10 ml of an adhesion barrier gel, composed of carboxymethyl cellulose (CMC) and polyethylene oxide (PEO) (Oxiplex/IU®, FzioMed, San Luis Obispo, CA, USA), was applied, with the aim of preventing the formation of intrauterine adhesions (Figure 3c). The patient had an uneventful postoperative course and was advised to undergo a new diagnostic hysteroscopy to evaluate the uterine cavity after 45 days.



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**Figure 1:** Intrauterine adhesion visualized in the central region of the uterine cavity.

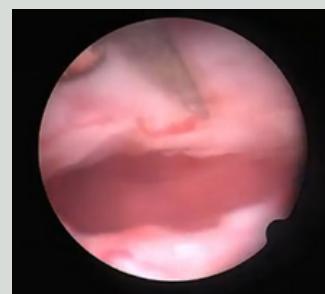


**Figure 2:** Intrauterine adhesions visualized in the region of the tubal ostium.



**Figure 3a**

**Figure 3b**



**Figure 3c:** Ultrasound images performed during adhesiolysis.

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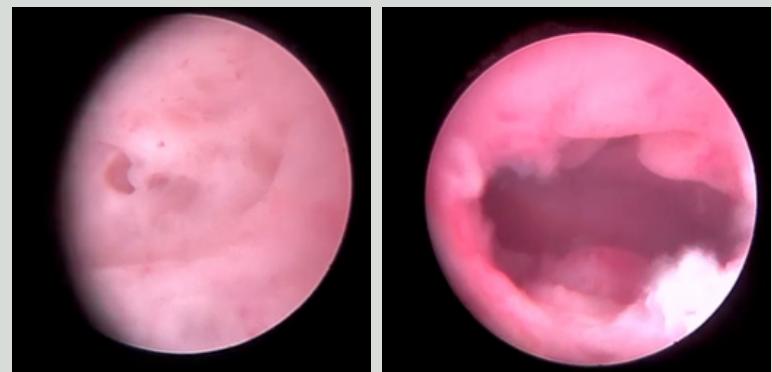
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**Figure 4:** Ultrasound images performed during adhesiolysis

### Follow up

The patient underwent a diagnostic hysteroscopy 4 weeks after the procedure (Figure 5) which showed secretory endometrium, without the intrauterine adhesions previously visualized in the preoperative examination. This highlighted only a tiny avascular adhesion located close to the left tubal ostium which was removed on an outpatient basis with Bettocchi system scissors. The patient will undergo long-term follow-ups with the team, to analyze the reproductive outcome.



**Figure 5:** Hysteroscopic Images performed after mechanical adhesiolysis followed by insertion of barrier gel.

### Conclusion

The vast majority of intrauterine adhesions are related to intrauterine surgeries, both obstetric and gynecological, and may have a negative impact on the menstrual cycle and reproductive potential. In these cases, treatment is indicated, with hysteroscopy being the gold standard. Due to the risk of adhesion recurrence after adhesiolysis, preventive measures are important. Therefore, the use of OXIPLEX/IU gel is an option to be considered in preventing the formation of intrauterine adhesions after adhesiolysis.