Case Report

Rare case report of Asherman syndrome

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ABSTRACT

Asherman syndrome, also known as intrauterine adhesions (IUAs), is a rare but significant gynecological condition. IUAs develop from the damage to the basal layer of the endometrium, leading to the formation of fibrous adhesions within the uterine cavity. Most commonly, it is followed by uterine surgeries, such as dilation and curettage, particularly following pregnancy-related procedures, and can also occur after hysteroscopic surgery, uterine artery embolization, or uterine tuberculosis. This syndrome causes changes in the menstrual cycle and affects the fertility of patient. Here, we report a case of Asherman syndrome that was not followed by any medical illness or surgical procedure for a gynecological or obstetric condition, or postpartum complication.

Key words: Adhesions, Asherman syndrome, Dilation and curettage, Fertility, Hysteroscopy, Menstrual cycle

Asherman's syndrome, also known as intrauterine adhesions (IUAs) or intrauterine synechiae, is characterized by partial or complete obliteration of the uterine cavity due to fibrous scar tissue formation. It most commonly arises as a complication following uterine trauma, particularly after procedures, such as dilation and curettage (D&C), myomectomy, cesarean section, or uterine infections, especially in the postpartum or post-abortion situation [1]. It may occur in up to 13% of women undergoing termination of pregnancy during the first trimester, and 30% in women undergoing dilatation and curettage after late spontaneous abortion [2]. It is found in 1.5% of women evaluated with hysterosalpingogram for infertility and between 5 and 39% of women with recurrent miscarriage [3]. The clinical manifestations of Asherman's syndrome vary and may include secondary amenorrhea, hypomenorrhea, infertility, recurrent pregnancy loss, or cyclic pelvic pain. However, some women may remain asymptomatic until they present with infertility or menstrual irregularities [4]. Diagnosis is primarily established by hysteroscopy, which remains the gold standard for both diagnosis and treatment [5]. Early recognition and timely management of IUAs are crucial to restoring normal endometrial function and improving reproductive outcomes. Hysteroscopic adhesiolysis is the mainstay of treatment, often followed by adjuvant hormonal therapy and mechanical barriers (e.g., intrauterine device or Foley catheter) to prevent recurrence [6].

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However, its occurrence without any predisposing factors is uncommon. However, this case highlights the diagnostic challenge and importance of clinical suspicion for Asherman syndrome.

CASE REPORT

A 30-year-old P2L2 female came to the outpatient department with a history of amenorrhea for 1 year. She had a history of scanty menses, with a cycle length of 60 days, for a duration of 1–2 days, with no history of dysmenorrhea, for 1 year. Her previous cycles were regular with average flow. Her previous ultrasound showed a generalized picture of polycystic ovary syndrome, with luteinizing hormone (LH) and follicle-stimulating hormone (FSH) levels within normal limits. She was given multiple cycles of progesterone followed by estrogen + progesterone for a period of 3 months for withdrawal bleeding, but the patient remained amenorrhoeic. The patient had two live issues delivered vaginally 7 years and 5 years back, with no history of postpartum hemorrhage or manual removal of placenta or D&C or Sheehan syndrome (failure of lactation) in both pregnancies.

On examination, the cervix was found to be unhealthy, the uterus was normal in size and mobile, but the right adnexa fullness was felt.

On ultrasound, the uterus was bulky (30×59×39 mm) and well-defined complex (? hemorrhagic) cyst of 40×36 mm was visualized in the right adnexa, without vascularity, endometrial thickness was hyperechoic of approx. 3 mm.

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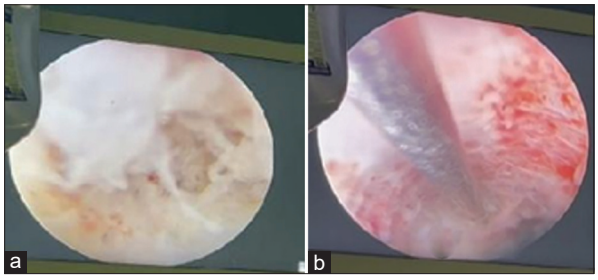

Figure 1: (a and b) Hysteroscopic view showing fibrous bands obliterating the uterine cavity, Hysteroscopic view after excision of fibrous tissue

All routine blood investigations were done, which were as follows: Hemoglobin - 11.6 mg/dL, total leukocyte count - 7,100/cumm, platelet count - 2,17,000/cumm, thyroid-stimulating hormone - 2.17, prothrombin time - 13.5, international normalized ratio - 0.96, cancer antigen-125 - 4.90, LH - 11.2 IU/L, FSH - 7.6 IU/L, Prolactin - 17 ng/mL. The Mantoux test was negative. Papanicolaou smear was negative for intraepithelial neoplasia.

The patient was planned for diagnostic hysteroscopy, which revealed a tunnel-like uterine cavity, fibrous tissues/bands on both the walls of the uterus, more on the right side. Fibrous bands were cut with scissors till the normal endometrium and both ostia were visualized (Fig. 1). After hysteroscopy, CuT 375 was introduced into the uterine cavity. Endometrial tissue was sent for tuberculosis (TB)-polymerase chain reaction, which showed that *Mycobacterium tuberculosis* complex was not detected in the endometrial tissue. Histopathological examination of the endometrial tissue was suggestive of a benign hyperplastic endometrial polyp with features of pill-endometrium.

The patient was discharged on a combined hormonal preparation. On follow-up after 1 month, the patient presented with mild bleeding per vaginum for a duration of 2 days and was subsequently kept on the combined hormonal therapy.

DISCUSSION

This case highlights a rare presentation of Asherman's syndrome. The patient presented with secondary amenorrhea for a period of 1 year. She did not have any complaints of pelvic pain associated with the presenting symptom; hence, the possibility of hematometra was ruled out. The patient did not give any positive history regarding any risk factors that lead to damage to the basal layer of the uterus, including abortion, postpartum dilatation and curettage, myomectomy, or cesarean section [7]. On investigating, all the laboratory parameters, including the LH and FSH levels, serum prolactin, thyroid profile, and Mantoux test were within the normal limits, which ruled out the possibility of pre-mature ovarian failure, genital TB, and hormonal imbalances. The patient was prescribed with multiple cycles of combined hormonal therapy, but the patient remained amenorrhoeic.

Chibwe presented a case report (2022) of a patient who presented with a similar complaint of amenorrhea of 1 month, which on hysteroscopic examination was diagnosed as Asherman syndrome. The patient had a history of a cesarean section 1 year back [8]. Papoutsis *et al*., presented a case report (2014) of a nulliparous woman who underwent open myomectomy, during which the uterine cavity was not entered. Later, she presented with oligomenorrhea for a period of 12 months post-operatively. On three-dimensional Doppler angiography and hysteroscopy, she was diagnosed with Asherman syndrome [9]. On the contrary, this patient did not give any positive history of undergoing any invasive procedure.

Hysterosalpingography and transvaginal hydro-ultrasonography can be used to make the diagnosis of Asherman syndrome, but they have high false positive rates, and hence weren't used in this case [8].

The patient was planned for hysteroscopic evaluation, which proved to be diagnostic as the entire endometrial cavity was filled with adhesions. Adhesiolysis was performed for the patient, followed by Copper T insertion. Post-operatively, the patient was kept on combined hormonal therapy that helps in the proliferation of the endometrium [10]. It has been observed in 75–100% of cases, normal menstrual cycle is restored [11] as was the case in our patient, she presented with mild bleeding per vaginum, 1 month after the surgery.

CONCLUSION

This case emphasizes the need for clinical suspicion of Asherman syndrome in women presenting with menstrual abnormalities or infertility in the background of a normal hormone profile. Therefore, the possibility of Asherman syndrome should always be considered in patients with secondary amenorrhea, even in the absence of a prior obstetric or surgical event.

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