Case Report

The Diagnosis and Management of Asherman's Syndrome Developed after Cesarean Section and Reproductive Outcome

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Intrauterine adhesions (IUA) frequently occur as a result of trauma to the basal layer of endometrium following pregnancy-related curettage such as incomplete abortion (33,3%), postpartum hemorrhage (37,5%), and elective abortion (8,3%). Hysterotomy, myomectomy, Cesarean section, hysteroscopic procedures, such as resection of submucosal leiomyomata or uterine septae, and endometrial ablation are less common etiologic factors resulting in IUA formation. Patients with Asherman's syndrome usually present with menstrual disturbances, infertility, or recurrent pregnancy loss. A successful treatment of infertility could be achieved by restoration of the uterine cavity, prevention of IUA reformation, and promotion of healing process. We presented the diagnosis and management of a case that suffers from menstrual disturbances and secondary infertility resulted from IUA formation developed after Cesarean section.

1. Introduction

Intrauterine adhesions (IUAs) were first described by Fritsch in 1894 and then further studied by gynecologist Asherman [1, 2]. They frequently occur as a result of trauma to the basal layer of endometrium following pregnancy-related curettage such as incomplete abortion (33,3%), postpartum hemorrhage (37,5%), and elective abortion (8,3%) [3]. Basal layer damage leads to partial or complete obliteration of the uterine cavity with surface deficiencies of the endometrium by fibrous bridges between the uterine walls [4]. Patients with Asherman's syndrome usually present with menstrual disturbances such as amenorrhea or hypomenorrhea, infertility, or recurrent pregnancy loss [5].

Hysterotomy, myomectomy, Cesarean section, hysteroscopic procedures, such as resection of submucosal leiomyomata or uterine septae, and endometrial ablation are less common etiologic factors resulting in IUA formation. The development of IUA after Cesarean section is uncommon and estimated at approximately 2–2.8% [4]. It may be more likely to result from chorioamnionitis or postpartum endometritis, postpartum curettage, and uterine compression sutures for postpartum haemorrhage [6].

We presented the diagnosis and management of a case that suffers from with menstrual disturbances and secondary infertility resulted from IUA formation developed after Cesarean section.

2. Case History

A 34-year-old woman, gravida 1, parity 1, with a previous Cesarean section history of 11 years ago, has applied to Yeditepe University ART Center with secondary amenorrhea and desire for pregnancy. Although she started seeing menstruation again three months after caesarian section, she presented with oligomenorrhea followed by amenorrhea for the last four years. Her vaginal examination and transvaginal USG revealed no abnormalities. Hysterosalpingography (HSG) was planned to evaluate tubal patency and uterine cavity. HSG revealed multiple filling defects in uterine cavity and bilateral tubal occlusion (Figure 1). An operative hysteroscopy was performed to distinguish between varying etiologies of filling defects. Hysteroscopy revealed the extent of endometrial cavity obliteration with dense, multiple adhesions, especially located on isthmus and previous Cesarean incision, and hysteroscopic adhesiolysis

look hysteroscopy, there was no reformation of adhesions and an adequate uterine cavity was achieved for pregnancy. Patient had resumption of normal menses 3 months after the initial procedure, and an IVF treatment was performed 6 months after the initial procedure because of tubal factor. The patient had an ongoing pregnancy.

4. Conclusion

As the present case, even with no history of chorioamnionitis or postpartum endometritis, postpartum curettage, uterine compression sutures, the probability of Asherman's syndrome should be kept in mind in patients with history of Cesarean section presenting with menstrual disturbances such as amenorrhea or hypomenorrhea and infertility because women with previous cesarean deliveries tend to develop uterine synechiae and that uterine synechiae may have an adverse impact on fertility and the uterine complication rate; therefore, the management of infertility puts forward the evaluation of uterine cavity. Moreover, even if there are additional infertility factors, in the patients with Asherman's syndrome, for the success of IVF procedure it is important to restore the uterine cavity and endometrium. It is also important to realize the high risk involved in such cases during the pregnancy course, and careful perinatal management should be required.

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