

Case Report of Post caesarian section Asherman's Syndrome

Elieza Chibwe*

Department of Obstetrics and Gynecology, Weill Bugando School of Medicine, Catholic University of Health and Allied sciences, P.O. Box 1464, Mwanza, Tanzania.

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***Corresponding Author:** Elieza Chibwe, Department of Obstetrics and Gynecology, Weill Bugando School of Medicine, Catholic University of Health and Allied sciences, P.O. Box 1464, Mwanza, Tanzania.
Email: eliezachibwe@yahoo.com

Abstract

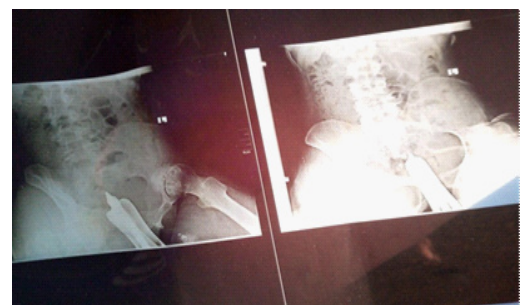
Asherman's syndrome is a syndrome that follows postpartum or postabortal curettage, it might present with menstrual abnormalities such as oligomenorrhea, amenorrhea, hematometra, recurrent abortions and infertility being the commonest presentation. This pathology arises as a result of partial or complete adherence of the anterior and posterior wall of the uterus due to disruption of the basalis layer of the endometrium which can occur following postabortal curettage, caesarian section, multiparity or myomectomy. The diagnosis of Asherman's syndrome can be reached using Hysterosalpingography and transvaginal hydroultrasound, but they have a high false-positive rate because many polyps and minor fibroids can be misdiagnosed as adhesions, for accurate diagnosis it is important to use hysteroscopy which is termed as a gold standard. Therapy includes adhesiolysis hysteroscopic then the intrauterine device of copper T and estrogen to stimulate endometrial proliferation and reepithelization.

Introduction

Asherman's syndrome is a syndrome that follows postpartum or postabortal curettage, it might present with menstrual abnormalities such as oligomenorrhea, amenorrhea, hematometra, recurrent abortions, with the commonest presentation being infertility [1]. This pathology arises as a result of partial or complete adherence of the anterior and posterior wall of the uterus due to disruption of the basalis layer of the endometrium which can occur following postabortal curettage, caesarian section, multiparity or myomectomy [2]. In approximately 90% of cases, intrauterine adhesions are due to curettage for pregnancy complications, such as missed or incomplete abortion or retained products of conception [3]. Surgical intervention always leads to scarring during the healing process, In the case of CS, the sewing of the uterine tissue leaves a scar in the endometrium, this inappropriate Scar healing can lead to a post-Caesarean niche (isthmocele), which is visible in ultrasound as a triangular hypoechoic area, this interruption of the endometrium is believed to occur due to insufficiency scar healing especially at the placenta bed [4].

The diagnosis of Asherman's syndrome can be made using Hysterosalpingography, transvaginal hydroultrasound but they have a high false-positive rate because many polyps and minor fibroids can be misdiagnosed as adhesions, for accurate diagnosis it is important to use hysteroscopy which is

termed as a gold standard [5], though other studies show HSG to have a sensitivity and specificity of 80% as a hysteroscope, the only advantage of the hysteroscope is its ability to report on the location and extent of the disease [6]. Asherman syndrome should be considered in patients with a history of Caesarian section presenting with amenorrhea/hypomenorrhea and infertility. Trauma itself leads to an impaired ability for implantation, the synechia can also lead to tubal occlusion and thus to infertility [7].



To avoid over treatment of Asherman's syndrome the difference between intrauterine adhesion and Asherman's syndrome should be made, as Intrauterine Adhesion only presents with adhesions with no symptoms, while Asherman's syndrome presents with both adhesions and symptoms such as hematometra, pelvic pain, amenorrhea, hypomenorrhea and infertility, secondly it might give a chance of conservative

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treatment for Intrauterine Adhesion if fertility is desired, while Asherman's syndrome needs surgical intervention such as adhesiolysis hysteroscopic then the intrauterine device of copper T and estrogen to stimulate endometrial proliferation and epithelization [8]. After primary hysteroscopic adhesiolysis, the formation of new adhesions is very frequent, and several modalities have been studied and suggested for the prevention of new adhesions such as fhyaluronic acid gel, IUCD, foley catheter balloon for 7-14 days, and estrogen from day 7 for 8-10 weeks which help to stimulate endometrium hyperplasia, and aid in re-epithelization of the basalis layer [9].

The initial goal of treatment is the restoration of a normal calibrated uterine cavity covered with endometrial lining and free tubal Ostia, Overall restoration of normal menstruation is observed in 75%–100% [10]. The pregnancy rate ranges between 25 and 76%, term delivery in women who achieved pregnancy ranges between 25 and 79.7%(10), again success rate is dependable on the severity of adhesions as whether mild, moderate or severe [11].

Case presentation

25 years old female, Para 1Living 0, she has had amenorrhea for the past 12 months since last caesarian section January 2021 due to abnormal lie, she presented with a complaint of amenorrhea for 12 months, however, she has no history of previous gynecological complications like abortion, curettage, or pregnancy loss, no history of pelvic pain, no menstrual symptoms, post caesarian section she had no any complication like post-partum hemorrhage or surgical site complication.

Following that illness, she attempted several treatment modalities such as hormone supplements to improve fertility for 3 months without any success of menstruation resume or conception. At Bugando Medical Center pelvic ultrasound revealed a normal scan, with normal uterine size, no free fluid in the pelvic region, hysterosalpingography findings showed throwback of the contrast, the cannula was unable to go through the cervical canal. The diagnosis of cervical internal os blockage due to adhesions was made. She was then planned for surgery to release the fibrosis to open the canal.

Laboratory works up elaborated haemoglobin level 12.7 g/dl (Normal), there was leucocytosis with a predominance of neutrophils 38.8 x10⁹. Follicle-stimulating hormone 2.76 IU/l, Luteinizing Hormone 5.0 mIU/ml, prolactin 6.8 ng/ml, Urine pregnancy test-negative. Imaging- pelvic ultrasound showed Endometritis with Right ovarian complex cyst, Hysterosalpingography showed features suggestive of adhesion of the lower uterine segment.

Discussion

Asherman's syndrome is a syndrome that follows postpartum or postabortal curettage, it may present with menstrual abnormalities such as oligomenorrhea, amenorrhea, hematometra, recurrent abortions, with the commonest presentation being infertility [1], This was evident to our case as she presented with amenorrhea for 12 months with no symptoms

pelvic pain suggestive of hematometra. This pathology arises as a result of partial or complete adherence of the anterior and posterior wall of the uterus due to disruption of the basalis layer of the endometrium which can occur following postabortal curettage, caesarian section, multiparty or myomectomy [2], however, most of the mentioned risk factors were not explaining the problem in our case, the only caesarian section was highly associated with Asherman's syndrome.

In approximately 90% of cases, intrauterine adhesions are due to curettage for pregnancy complications, such as missed or incomplete abortion or retained products of conception [3], however, this was not the case in our patient as she had no history of curettage, no previous uterine scars or uterine surgery, only a full-term pregnancy baby caesarian section in January 2021. Surgical intervention of the uterus leads to scarring during the healing process, for the case of the Caesarian section, the sewing of the uterine tissue leaves a scar in the endometrium, this inappropriate Scar healing can lead to a post-Caesarean niche (isthmocele), which is visible in ultrasound as a triangular hypoechoic area, however, these findings were not evident via transabdominal ultrasound, this interruption of the endometrium is believed to occur due to insufficiency scar healing especially at the placenta bed [4].

The diagnosis of Asherman's syndrome can be made using Hysterosalpingography and transvaginal hydroultra-sonography but they have a high false-positive rate because polyps and minor fibroids can be misdiagnosed as adhesions, Hysterosalpingography was used in our case but it was unable to confirm the diagnosis of Asherman syndrome due to complete blockage of the internal os by fibrotic bands which contrasted to a throwback. For accurate diagnosis it is important to use hysteroscopy which is termed as a gold standard [5], however, this modality was not available in the facility. Other studies show Hysterosalpingography to have a sensitivity and specificity of 80% as a hysteroscope, the only advantage of the hysteroscope is its ability to report on the location and extent of the disease [6] which help to determine treatment outcome. Asherman syndrome should be considered in patients with a history of a Caesarian section presenting with amenorrhea/hypomenorrhea and infertility because trauma itself leads to an impaired ability for implantation, the synechia can also lead to tubal occlusion and thus to infertility [7]. The diagnosis of Asherman's syndrome was reached using intraoperative findings which revealed partial endometrial cavity obliteration with adhesions intracavitary, cervical canal occlusion by adhesion band blocking the internal os and cervical canal, there was no evidence of hematometra.

To avoid over treatment of Asherman's syndrome the difference between intrauterine adhesion and Asherman's syndrome should be made as Intrauterine Adhesion only presents with adhesions with no symptoms, while Asherman's syndrome presents with both adhesions and symptoms such as hematometra, pelvic pain, amenorrhea, hypomenorrhea and infertility as it presented in our case, secondly it might give a chance of conservative treatment for Intrauterine Adhesion if fertility is desired while Asherman's syndrome needs

surgical intervention such as adhesiolysis hysteroscopic then the intrauterine device of copper T and estrogen to stimulate endometrial proliferation and epithelization [8]. After primary hysteroscopic adhesiolysis, the formation of new adhesions is very frequent, and several modalities have been studied and suggested for the prevention of new adhesions such as hyaluronic acid gel, Intrauterine contraceptive devices such as copper T, foley catheter balloon for 7-14 days, and estrogen from day 7 for 8-10 weeks which help to stimulate endometrium hyperplasia, and aid in re-epithelization of the basalis layer [9] which was previously distorted. The initial goal of treatment is the restoration of a normal calibrated uterine cavity covered with endometrial lining and free tubal Ostia, Overall restoration of normal menstruation is observed in 75%–100% [10], as in our case menses resumed after 3 months post-surgery and a month after stopping combined oral contraceptive.

Conclusion

Amenorrhea post caesarian section should highlight our thinking on the possibility of Asherman's syndrome, Hysterosalpingography and transvaginal hydroultra-sonography can be usefully in resource-limited centres. Foley catheter balloon then intrauterine devices of copper T and combined oral contraceptive to prevent second obliteration is recommended. A resume of menses does not signify a 100% chance of pregnancy as other factors such as the severity of adhesions play a key role in pregnancy success.

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