Case Report

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Cesarean Scar Pregnancy: Report of Two Cases

Habiba Sharaf Ali

ABSTRACT

Cesarean section scar ectopic pregnancy is rare pregnancy complication. They have become common due to an increase in cesarean sections worldwide. The following report outlines two cases of scar pregnancy in women; both women had a history of two previous cesarean sections. Both were type 2 scar pregnancies as they protruded from the uterine myometrium towards the uterine serosa.[1] The first woman initially received suction evacuation. The products, however, could not be entirely evacuated. As a result, laparotomy was performed. The second patient also underwent laparotomy due to her symptoms. Obstetricians need to keep a high index of suspicion while managing women with risk factors for an ectopic scar pregnancy. Failure to detect and pledge rapid treatment can lead to uterine rupture, massive hemorrhage, and maternal death. In the following report, presentations, and management of these two cases are discussed followed by a review of published literature.

Keywords: Cesarean scar pregnancy, suction curettage, laparotomy

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INTRODUCTION:

Cesarean scar pregnancy (CSP) or cesarean scar ectopic pregnancy is the embedding of a gestational sac in the uterine scar which has formed because of a previous cesarean section, previous myomectomy, uterine evacuation, or history of previous abnormally adherent placentation, manual removal of placenta, hysteroscopy, and in vitro fertilization.[2] It is a rare type of ectopic pregnancy reported to occur in approximately 1 in 2000 pregnancies.[3]

The risk of pathologically adherent placenta such as accretes increata, percreta, and scar pregnancy increases with the number of cesarean sections.[4] The symptoms of scar pregnancy vary; either the woman is asymptomatic or comes with lower abdominal pain and vaginal bleeding. The diagnosis is usually confirmed by a Transvaginal scan which shows an empty uterus with the presence of a gestational sac at the previous scar site as well as thin myometrium. Doppler ultrasound is also helpful as it shows quantifiable vascularization around the cesarean section scar.[5] Magnetic resonance imaging (MRI) is an additional tool used for CSP.[6] The best possible management of the patient with a sonographic diagnosis of suspected CSP remains uncertain and challenging. Some conservative treatment modalities are curettage, hysteroscopy, local or systemic methotrexate alone, or removal of trophoblastic tissues via laparotomy or laparoscopy, and uterine artery embolization.[7]

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Almost all pregnancies diagnosed as CSP are terminated. If they are left to continue, they can result in catastrophic complications such as uterine rupture, hemorrhage, a high risk of hysterectomy causing severe maternal mortality and morbidity, and future fertility concerns.

CASE REPORTS:

Two cesarean section scar pregnancy cases were confirmed and treated in the Obstetrics and the Gynecology Department of Kharadar General Hospital, Karachi. The cases were reported in two months, from May to June 2021, at 7 to 8 weeks gestation. The details were as follows- In both cases, diagnosis was based on the presence of an empty uterus and cervical canal. The gestational sac was located anteriorly with a diminished myometrium layer between the bladder and the sac.

Case 1: A 35-year-old female, with a history of two previous cesarean sections came with complaints of two months of amenorrhea and vaginal bleeding. An initial ultrasound scan confirmed an irregular sac in the lower uterine segment measuring 1.9x1.4 cm. Endometrial thickness was 0.6cm with hyper vascular trophoblastic tissues around the sac on Doppler suggesting missed scar pregnancy. Her early beta HCG was 844. Primarily the patient was managed by suction curettage under general anesthesia. On examination, during the procedure cervical os was open. The uterus was bulky and empty. Few pieces mixed with clots were removed from the scar area. Suddenly the patient started bleeding profusely per vaginally so the procedure was stopped and uterine packing was done which controlled the bleeding. Two days later, her beta HCG was 760 raising high suspicion of retained products. An ultrasound scan done showed an endometrial thickness of 0.6cm. The irregular cystic structure

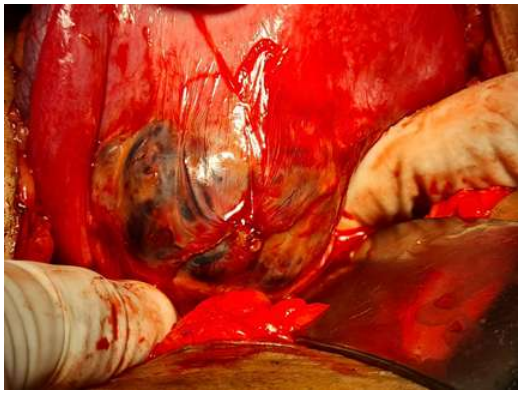
was seen in the scar region's lower segment of the uterus, measuring 1.3x0.6 cm. It may be collapsed gestational sac with thick trophoblastic tissue with increased vascularity. The patient constantly had pain and bleeding. Laparotomy was undertaken. On opening, the peritoneal cavity bladder was seen adherent to the uterine scar. The previous scar was seen to be covered with a cystic structure with an area of hemorrhage and necrosis. There were no myometrial tissues. Figure 1 shows the lower uterine segment with absent myometrium and visible sac. The trophoblastic tissues were removed and the uterus was stitched in two layers. The patient made an uneventful recovery. The histology confirmed the retained products of conception.

Figure 1: Case 1 Lower Uterine Segment With Absent Myometrium and Visible Sac

Case 2: A 22-year-old female with history of previous cesarean section came to the gynecology outpatient department with the complaints of two months of amenorrhea and slight bleeding per vaginum. The abdomen was soft and not tender, per vaginal examination revealed close cervical os. Transvaginal ultrasound revealed irregular sacs seen in the lower segment of the uterus in the scar region in the lower myometrium traversing the full length of the anterior myometrium and protruding the serosal layer. It measures 1.9 x1.4 cm with trophoblastic tissue around it with evidence of circulation and hypervascularity. On Doppler scan findings were suggestive of missed scar pregnancy. Her serum beta HCG was around 25000mIU/ml. The repeat Beta HCG was 19000. She lost to follow up for two weeks and then came in an emergency with complaints of severe lower abdominal pain. Ultrasound done in emergency showed the same findings as before. Due to her symptoms and our earlier experience with the first case we decided to take the patient to theatre for laparotomy.

On opening the peritoneal cavity the bladder was seen adherent to the lower uterine segment covering the scar area. In the lower uterine segment, a bulging gestational sac was seen covered by the serosal layer. There was no myometrium, small nick was given and the whole sac with the placenta came out. Figure 2 shows bulging gestational sac with absent myometrium. Through the gap in the lower uterine segment, the uterus was explored by fingers to look for any remaining trophoblastic tissues. The incision was closed in two layers. The estimated blood loss was minimal as there was no bleeding from the scar site.

Figure 2 Case 2 Bulging Gestational Sac with Absent Myometrium



DISCUSSION:

There is a recent rise in scar pregnancy due to increased cesarean rate and early diagnosis. The diagnosis of choice is ultrasound scan and preferably Doppler scan. Both our patients were diagnosed by Transvaginal ultrasound.

The best possible and optimal management of CSP is unclear and a variety of therapeutic strategies are being used and so far no definitive and universal treatment is available. Initially, the first-line approach considered by "The Practice Committee of the American Society for Reproductive Medicine"[8] was systemic methotrexate but the systemic review published by Kanat-Pekt showed that systemic methotrexate was successful in 8.7 % of cases.[9] In the same review hysterectomy by laparoscopy or laparotomy produced the same results and was successful in 92% of cases. He recommended both methods to be safe and efficient and should be adopted as primary treatment modalities for CSP. He also noted that D&C as a first approach is associated with hemorrhage as in our case, infertility poor obstetric outcome.

In a study done by Timor-Tritsch IE and colleagues, 26 stable patients between gestational age of 6 to 14 weeks were included, where combined intramuscular and intra gestational MTX injection were used.[4] They reported no complications. Ayºe Karahasanoglu, MD in their study successfully used suction curettage under ultrasound guidance and balloon tamponade as the main on 13 patients.[10] Both of our scar pregnancies were type 2 and they have a threatening prognosis due to chances of spontaneous uterine rupture, hemorrhage and maternal death so termination of pregnancy was decided by doing laparotomy. Termination of pregnancy is recommended as leaving the pregnancy

results in placenta previa, accreta, uterine rupture, and related life-threatening massive hemorrhage.[11] In a recently published case report patient with a cesarean scar, pregnancy was ultimately managed by doing a partial hysterectomy due to excessive hemorrhage. Initially methotrexate, D &C, and Baku balloon were tried.[12]

Our first patient underwent suction curettage initially but during the procedure, she started bleeding per vaginum and uterine packing was done to control the hemorrhage. She could have been managed laparoscopically but due to the unavailability of expertise and the acute situation, laparotomy was performed. This is small case series of two patients only. It's our first experience managing CSSP. Due to the condition of the patients we were unable to try any other options.

CONCLUSION:

We report two cases of cesarean scar pregnancy. We found that the treatment of patients with cesarean scar pregnancies is a challenge. We conclude that treating patients of Cesarean scar pregnancy with definite treatment such as by hysteroscopy, laparoscope, or by doing open surgery avoids the need for further interventions, blood loss, issues of the retained product of conceptions, and fertility issues.

Authors Contribution:
Habiba Sharaf Ali: Main idea, manuscript writing, research, proof reading

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Letter to Editor **Open Access**

Monkeypox: An Ignored Adversary

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Dear Editor,

Monkeypox was first discovered in monkeys in 1958, so it was named after that. The first case was seen in humans in 1970. Monkeypox virus is the causative agent, the same family as smallpox, but causes a less severe disease.ÊThe Congo Basin and West African strain are the two types of strains. All cases identified in the outbreak have been caused by the West African strain.[1]

The mode of transmission of Monkeypox virus is via intimate contact with sores, biofluids, aerosols, and contaminated fomites. The latent period lasts between 6 and 13 days but may vary from 5 to 21 days. Monkeypox is usually self-resolving but may become severe in youngsters, expectant women, and immunocompromised personnel.[2]

According to the World Health Organization (WHO), there are 12 endemic countries where the monkeypox virus prevails.[3] However, in the past few weeks, 12 non-endemic WHO member states have reported newfound cases of the monkeypox virus. Although no deaths have been reported in recently identified cases, The United Kingdom has surpassed this list with the highest number of confirmed cases reported between 13 and May 21, 2022. [3] Based on current data, cases have been identified mostly in homosexuals pursuing care in sexual and general care clinics.

The disease had not received any regard when it was an issue of the African region, but as soon as estimable countries started having a rise in cases, it came to immediate attention worldwide. For decades, the monkeypox virus had cohabited with African populations. With increasing urbanization, relocation, and friction; wildlife and human contact is becoming more common, and such contiguity will advocate congestion of zoonotic bugs. At present, we are lacking in knowledge of microorganisms that might surface, so, we need an adequate investment in vigilance.

Since the emergence of the monkeypox virus in non-endemic countries, national and provincial health authorities in Pakistan were put on high alert on May 23, 2022, as per the notification from the National Institute of Health (NIH) which emphasized that the virus could also outbreak in Pakistan. Even though Pakistan hasn't reported its first confirmed case of monkeypox yet, the spread of the virus to the country is almost inevitable. Pakistan has a massive number of flights coming from the regions where monkeypox is on rise, screening for the virus should be mandated at the airports, and suspected or confirmed cases must be quarantined for a prodromal period. The struggling health care system will be on the verge of collapse if monkeypox starts to spread. Pakistan does not have any diagnostic facility for the virus, the health department has declared samples can be sent abroad for testing in case of emergencies which further threatens the spread. [4] Therefore, to avoid a monkeypox/COVID-like outbreak in Pakistan, relevant health authorities must employ a proactive approach and initiate nationwide awareness campaigns that emphasize the importance of effective hygiene practices, self-quarantining, and other relevant safety protocols.

To date, the strategy to restrain monkeypox eruption depends on mass education and timely detection of cases to decrease the virus transmission. Hugh Adler and colleagues[5] have mentioned in one of their studies that some trials are being conducted to see the efficacy of antivirals in controlling monkeypox. A study is ongoing in Congo exploring the role of smallpox vaccination, and another study will monitor the role of antiviral tecovirimat in Africa.[6] Meanwhile, African doctors vast experience for the treatment of Monkeypox should be acknowledged and their guidance should be taken for further evaluation and management of the disease.

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