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Case Report

Normal Pregnancy Following Scar Pregnancy: Case Study

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Abstract

The incidence of caesarean scar pregnancy is increasing with increasing incidence of caesarean sections. Women with previous caesarean section are endangered to have Caesarean scar pregnancy (CSP). There is no harmony on the treatment of CSP or any guidelines to date. This case report presents a 38 years old woman with normal pregnancy following CSP. She had quite antenatal period and had elective caesarean section at 38 weeks with an outcome of healthy baby boy. More reports on pregnancy following CSP are needed.

Keywords: *Caesarean Scar Pregnancy; Ectopic Pregnancy; Caesarean Section; Transvaginal Scan; Microscopic Dehiscent Tract*

Introduction

An ectopic pregnancy defined as extrauterine pregnancy i.e. happens outside of the uterine cavity. Incidence of ectopic pregnancy is 2% of all pregnancies [1,2]. Ectopic pregnancy has different presentation but almost all patients have some sort of vaginal bleeding [3,4]. Further, extrauterine pregnancy accounts for six percent of all pregnancy related deaths and is that the highest contributor to haemorrhage related deaths [2,3,5]. Risk factors for an ectopic pregnancy include for example, previous ectopic, tubal ligation, pregnancy at old age, IUD insertion, and sexually transmitted diseases (STD) [6,7]. On the other hand, many women presented with no risk factors. Ampulla of the Fallopian tube is the most common location for ectopic pregnancy [1,3]. However, ectopic pregnancy can occur anywhere in the abdomen or on any organ inside the abdomen [6,8].

Caesarean scar pregnancies (CSP) are rare condition with an incidence of 1 in 2000 to 1in 3000 pregnancies [1,2,7]. To date, a little bit more than 1000 cases have been reported in literature. The increasing rate of CSP concise with the increasing rate of caesarean delivery [4-6]. Danger for a caesarean scar ectopic doesn't seems necessarily to increase with the number of caesarean deliveries, despite that, 50% of patients experiencing greater than 2 caesarean deliveries [1,2]. After caesarean delivery or after hysterotomy, disruption of endometrium and myometrium increase the risk of abnormal implantation. Without normal surrounding myometrium, untreated caesarean scar ectopic pregnancies may result in uterine rupture which gives rise to severe maternal haemorrhage and death [7,8].

Transvaginal scan (TVS) is the best diagnostic tool in the early weeks of CSP. Conservative treatments aim to perform feticide before uterine rupture, and to retain patient's fertility [2,3]. Preserving woman fertility indicates that she will become pregnant again. This prompt, increasing risk of recurrent CSP and life-threatening complications [1,3,8].

This article presents a case describing a pregnancy course and outcome after CSP.

Case Report

A 38-year-old G7 P3+3 14 weeks pregnant woman presented to outpatient clinic department for regular antenatal care follow up. The patient had a history of 3 caesarean deliveries in the past due to fetal distress. Her first and second pregnancies were caesarean sections followed by two first trimester spontaneous abortions then her third caesarean section. Her most recent pregnancy was 16 months prior to this pregnancy, and it was caesarean scar pregnancy (CSP) (Figure 1 and 2). She had no significant medical history and had regular menses.

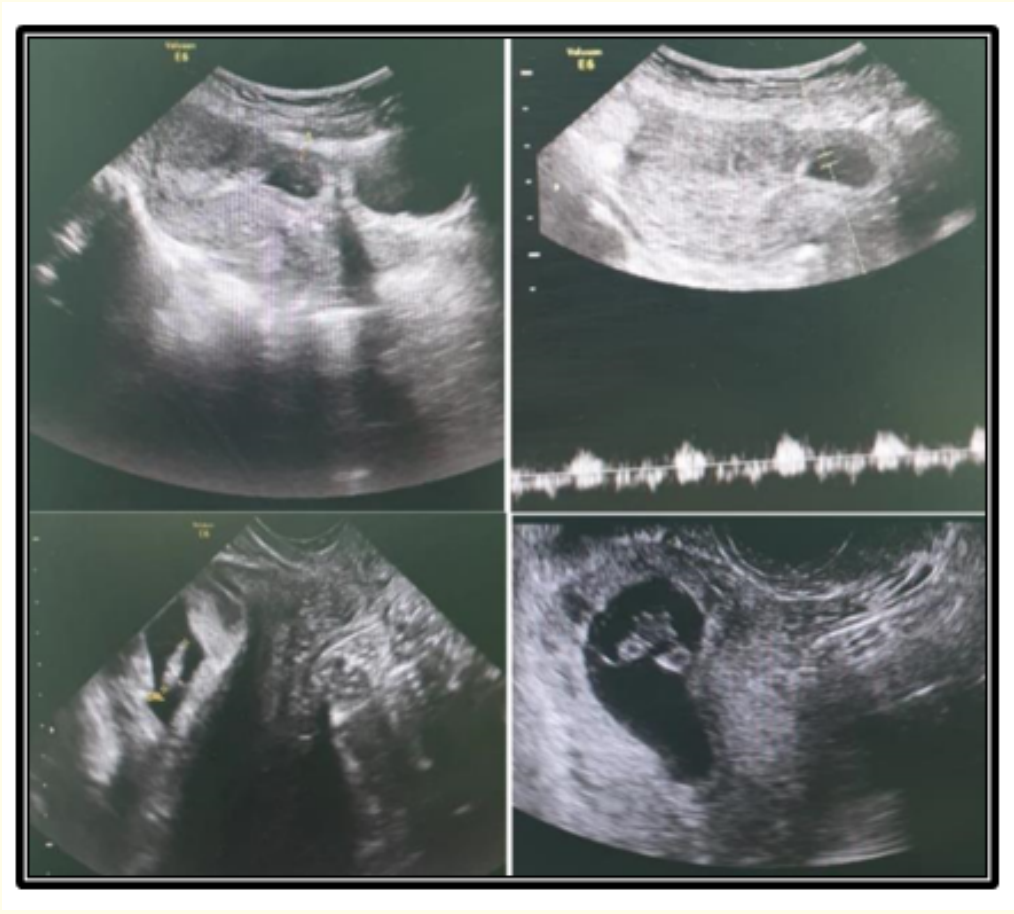

Figure 1: *Patient CSP ultrasound.*

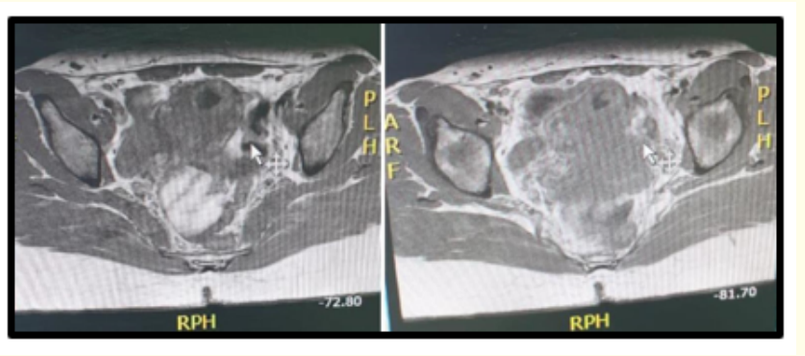

Figure 2: *Patient CSP MRI.*

Regarding previous CSP, patient presented at 10 weeks amenorrhea for regular antenatal follow up. During ultrasound she was suspected to have CSP of a viable fetus then diagnosed by TVS and confirmed by MRI. In the beginning, systemic methotrexate was used to treat her but was not effective. Followed by intrasac methotrexate injection given by interventional radiologist. Patient followed for 6 weeks until the sac collapsed and then disappeared. Patient was advised not to get pregnant for the following six months to the treatment.

In this pregnancy, at presentation, patient was 14 weeks pregnant with no complaints. On examination, vitally patient stable and having closed cervix on speculum evaluation. All her antenatal investigations were normal. Quantitative Beta-hCG was 25,713 mIU/mL, transabdominal ultrasound demonstrated a single viable fetus (gestational age at 14 weeks and 3 days). Presence of fetal cardiac motion was noted.

Patient was kept on close follow up every two weeks until 38 weeks when she had her fourth elective caesarean section. Scar before baby delivery showed dense adhesions with obliterated angels, dissection done and smooth Caesarean section completed (Figure 3). She gave birth to baby boy 3.2 kg's alive and well. Fourth post operative day patient was discharged in excellent condition and seen after two weeks and at the end of her puerperium and she was in excellent condition.

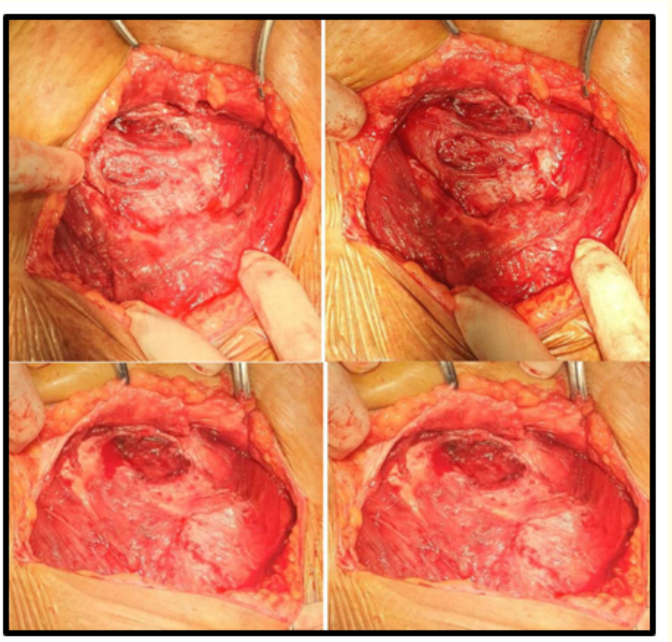

Figure 3: *Elective CS.*

Discussion

Caesarean scar implantation is rare pregnancy in the general population [2,4,7]. Women with a minimum of one caesarean delivery has CSP higher incidence of 1 in 531 [1,2,5]. CSP represents 4 - 6% of all ectopic pregnancies in women with previous caesarean section. the increasing caesarean rate will result in more women diagnosed with CSP [3,8]. The pathogenesis of a CSP involves implantation in dehiscent tract, or a defect in the caesarean scar [1,5,6]. Factors leading to poor myometrial healing during previous caesarean delivery are preterm or breech delivery and caesarean following failure to progress in early labor [2,7]. Recently, IVF (*Invitro* fertilization) has been suspected as another risk factor causing deficient myometrium [1,3]. Woman diagnosed with CSP should be informed about treatment options and these options effects on future reproduction. Although CSP has several treatment modalities, but true measure of success for woman is to get pregnant again [1,5,7,8].

It is necessary to report subsequent pregnancy outcomes following CSP treatment, and this will establish the benefits and risks of preserving fertility treatments [2,6]. On reviewing the literature for subsequent pregnancy outcomes following CSP, only very few articles report outcomes found [1,7]. 1 - 48 months is the median interval for previous CSP to get pregnant again. Although most of these pregnancies end as abortion. Dilation and curettage to get rid of CSP is consistently related to haemorrhage and therefore the potential for hysterectomy. Uterine rupture, haemorrhage leading to hysterectomy, and deaths are reported in unrecognized and expectantly managed CSP [1-3,5,7,8].

Conclusion

CSP is a dangerous and complex disorder with increasing occurrence in recent years. Accurate early diagnosis and effective management are important to reduce maternal mortality and mortality. This article shows that reproductive outcomes after CSP are good, and women achieve pregnancy in short time. Risk of complications, especially recurrent CSP, are low.

There is a huge need to report cases of pregnancy following CSP to reach consensus on best method of managing patients. Extra, these reports will present the incidence of outcomes following CSP management.

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