

## **Pregnancy of Cesarean Scar on Pregnancy Induced with Ovarian Hyperstimulation Syndrome**

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### **Case Report**

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#### **Article History**

*Received: 27.06.2018*

*Accepted: 09.06.2018*

*Published: 30.06.2018*

#### **DOI:**

10.36347/sjams.2018.v06i06.041



**Abstract:** Caesarean section scar pregnancy is a rare form of ectopic pregnancy that is life-threatening due to bleeding or early uterine rupture. We report the case of a 35-year-old woman who had an ectopic pregnancy implanted in the scar of a previous caesarean section. It was an induced pregnancy complicated by an ovarian hyperstimulation syndrome. The diagnosis was extended to seven weeks of amenorrhea (SA) by ultrasound and allowed rapid management. We chose a conservative surgical treatment

**Keywords:** pregnancy, scar, induction, conservative treatment.

### **INTRODUCTION**

Implantation of a pregnancy in a caesarean section scar is the rarest form of ectopic pregnancy with an estimated incidence of 1/1800 pregnancies [1]. In the literature, its incidence varies from 1/1800 to 1/2216 births after caesarean section [2]. The first publication on the subject dates from 1978 [3]. It is a pregnancy at major risk of massive haemorrhage that requires active management as soon as it is diagnosed.

### **Clinical case**

This is a 35-year-old patient G2P1 (no live child) with no notable pathological history, G1: completed pregnancy, high birth due to acute fetal distress, died at 4 years of age on an AVP. G2: is the current pregnancy of 7SA, it is an induced pregnancy for infertility of 8 years.

The patient consulted gynecological emergencies at Hassan II Fez University Hospital for pelvic pain and dark metrorrhagia of low abundance, which had been evolving for a few days.

The clinical examination of admission confirmed the endo-uterine origin of the bleeding, the hemodynamics were stable and the abdominal palpation did not find any criterion of gravity. The endovaginal echography performed then made it possible to make the diagnosis of isthmic pregnancy, implanted on the caesarean section scar (figure1 and figure 2): the embryo measured 13 mm and the cardiac activity was present, a term estimated at 7 SA with ovarian hyperstimulation syndrome (Figure 3).

In view of the patient's age, parity and subsequent desire for pregnancy and after discussion with the patient, conservative surgical treatment with intramuscular methotrexate (MTX) injection was decided.

### **βHCG monitoring was satisfactory**

Our patient was discharged on day 5 with a 9.7 g / dL hemoglobin. The following month, all functional signs were gone: the menstrual cycle was normal, βHCG was negative, and the uterine cavity was empty.



Fig-1



Fig-2

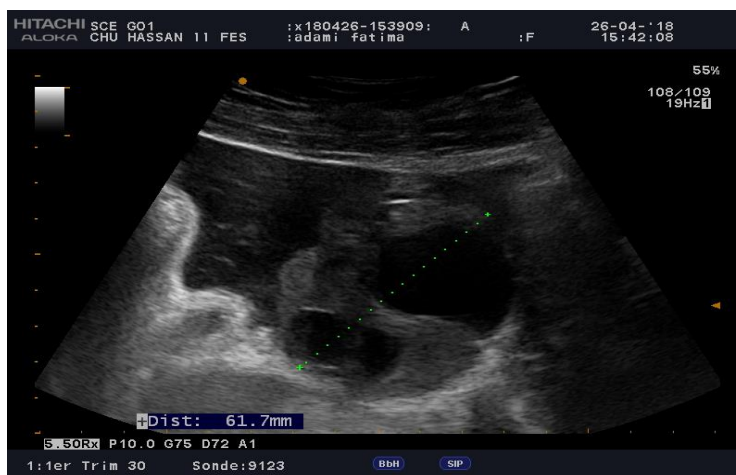


Fig-3

## DISCUSSION

Pregnancy is thought to preferentially implant into a "dehiscent" scar, forming a cavity diverticulum, or isthmocele, that can become endometrial and become hospitable to an egg.

The risks of uterine rupture, placenta accreta, and scar pregnancy are all the more important as the number of anterior caesarean section is high [1].

The number of previous caesarean sections would be a risk factor, as would the technique of uterine closure or the level of the incision (too high,

corporeal in the case of a poorly developed lower segment).

The clinical presentation associates pelvic pain and / or metrorrhagia of variable abundance in early pregnancy in patients with a history of hysterotomy.

The diagnosis is evoked in front of an empty uterine cavity of pregnancy but often filled with one able to realize a pseudo-sac more or less misleading: a trophoblastic ring is found in the isthmic region of the uterus, forward, under the bladder. Initially, we often think of an egg being expelled but the position remains frozen at the following controls.

#### Indirect signs are

- A decrease in the thickness of the myometrium between the gestational sac and the bladder, which reflects the depth of implantation
- And a peri-trophoblastic hypervascularisation objectified by the color Doppler or energy

The discovery is sometimes done during curettage for abortion or spontaneous abortion, in the presence of unexplained and persistent hemorrhage.

In case of diagnostic doubt and / or to document the iconography, an MRI can be performed to confirm the diagnosis, to specify the depth of the trophoblastic invasion in the myometrium, and the potential damage to the serosa or the bladder [4].

There is no consensual treatment for scarred pregnancies. However, the latter must be early and active because of the major hemorrhagic risk that puts the patient's life at risk with a risk of emergency hysterectomy. The goal of treatment, medical or surgical, is to be conservative. Several methods are reported in the literature [5].

The injection of methotrexate, sodium chloride or hypertonic saline solution in situ trans-abdominal, vaginal or laparoscopic found a general rate of complications of 9.4% and success rates of the order of 80% [1, 3].

The advantage of laparoscopy is visualization and evaluation of the uterine scar [6]. Prognostic factors for good response to treatment are absence of cardiac activity, HCG between 5000 and 10,000 IU / L, gestational age less than 7 weeks, and craniocaudal length less than 10 mm [2].

Finally, means of prevention exist. Some authors propose to check by ultrasound the existence of a defect on any scar before a later pregnancy or at the beginning of pregnancy to target the patients "at risk" with a sensitivity of 87% and a specificity of 100% [7] or to identify early in pregnancy, the low gestational

sacs inserted and included in the scar [2]. However, the systematic repair of any diagnosed scar defect is not justified in view of the frequency of this anomaly (approximately 10% of cesarean section) compared to the rarity of CSP [13].

#### CONCLUSION

Ectopic scar pregnancy is a rare complication of scarred uteri. But the increase in the rate of caesarean section in the world makes it necessary to be vigilant in the face of this situation which can lead to serious hemorrhagic complications. Diagnosis and management should be early and active because of the risk of bleeding. Endo-vaginal ultrasonography associated with Doppler allows diagnosis. Medical or surgical treatment must be conservative and must also prevent hemorrhagic complications by surgically obtained vascular control or embolization. A monitoring of the decay of plasma HCG as well as the ultrasound evaluation. The risk of recurrence exists and should be explained to the patient

#### Conflict of interest

The authors declare that they have no conflicts of interest in relation to this article.

#### REFERENCES

1. Jurkovic D, Hillaby K, Woelfer B, Lawrence A, Salim R, Elson CJ. First-trimester diagnosis and management of pregnancies implanted into the lower uterine segment Cesarean section scar. *Ultrasound in obstetrics & gynecology*. 2003 Mar 1;21(3):220-7.
2. Timor-Tritsch IE, Monteagudo A. Unforeseen consequences of the increasing rate of cesarean deliveries: early placenta accreta and cesarean scar pregnancy. A review. *American Journal of Obstetrics & Gynecology*. 2012 Jul 1;207(1):14-29.
3. Larsen J, Solomon M. Pregnancy in a Uterine Scar Sacculus-an Unusual Cause of Postabortal Haeinorrhage. *S. Afr. med. J.* 1978;53:142.
4. Persadie RJ, Fortier A, Stopps RG. Ectopic pregnancy in a caesarean scar: a case report. *Journal of Obstetrics and Gynaecology Canada*. 2005 Dec 1;27(12):1102-6.
5. Maymon R, Halperin R, Mendlovic SE, Schneider D, Herman A. Ectopic pregnancies in a Caesarean scar: review of the medical approach to an iatrogenic complication. *Human Reproduction Update*. 2004 Dec 1;10(6):515-23.
6. Tulpin L, Morel O, Malartic C, Barranger E. Conservative management of a Cesarean scar ectopic pregnancy: a case report. *Cases journal*. 2009 Dec;2(1):7794.
7. Fylstra DL, Pound-Chang T, Miller MG, Cooper A, Miller KM. Ectopic pregnancy within a cesarean delivery scar: a case report. *American Journal of Obstetrics & Gynecology*. 2002 Aug 1;187(2):302-4.

8. Gubbini G, Casadio P, Marra E. Resectoscopic correction of the “isthmocele” in women with postmenstrual abnormal uterine bleeding and secondary infertility. *Journal of minimally invasive gynecology*. 2008 Mar 1;15(2):172-5.