Case Report

A Case Report of Caesarean Scar Ectopic

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Abstract

In this case report the occurrence of ectopic pregnancy in a previous caesarean scar will be discussed in which diagnosis has been made through transabdominal ultrasonography. The diagnosis was made during antenatal checkup, we will discuss the clinical details and treatment of this condition.

Caesarean section scar ectopic pregnancy can develop within the myometrium. Uterine rupture, hemorrhage and a hysterectomy are some of the serious complications which can develop resulting in serious maternal morbidity and mortality. The data available suggests termination of pregnancy by surgical intervention if the diagnosis made is correct but expectant management is also an option in some cases.

Keywords: Caesarean scar ectopic, Pregnancy, Ectopic/diagnostic imaging.

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Introduction

Abdominal pregnancy is a type of extrauterine[1] gestation which is rare with a reported incidence of one per 10000 births. In total abdominal pregnancies account for only 1%[2] of ectopic. In total out of all pregnancies the quoted incidence is 1 in 2200 to 1 in 10,200. The maternal mortality rate can reach up to 20%[3], because of the risk of severe haemorrhage that can result as partial or complete separation of the placenta. The placenta can be attached to the wall of uterus, bowel, mesentery, liver, spleen, bladder and ligaments, Its separation during pregnancy can lead to massive blood loss.[4] Abdominal pregnancy is classified as primary or secondary. Studdiford's criteria is used for the diagnosis of primary abdominal pregnancy.[5] Anatomic conditions that are required to fulfill the criteria of diagnosis of abdominal pregnancy include 1) normal looking tubes and ovaries, 2) uteroplacental fistula should be excluded, and 3) secondary implantation should also be ruled out by confirmation of early attachment of gestational sac to peritoneal surface. Ultrasound is used as a first line imaging method, with magnetic resonance imaging (MRI) is helpful in cases when difficulty in identification of anatomic relationships may alter the surgical approach.

In absence of conclusive data available every woman should be offered all management options according to Jurkovic et al.[4] According to the study that was empowered by 8 women diagnosed with such pregnancy, out of which 1 had to go through expectant management, Maymon et al[6] made clear that even with numerous treatment choices available, the prospects of a complete full term pregnancy are still less.

Case Report

A 35 year old woman from Saudi Arabia gravida 7, para 3, with a history of three LSCS and three miscarriages, presented in outpatient department of gynaecology with 7 week amenorrhea. The patient's past obstetric history included three cesarean sections. The first cesarean section was done due to fetal distress due to placental abruption, second with an indication of placenta praevia and for the third time she proceeded for elective LSCS. She came in the outpatient department with the complain of lower abdominal pain and vaginal spotting occurring for the past of 12 days. The general physical examination was unremarkable Bimanual vaginal examination gave the results of 8-weeks size uterus that was tender, retroverted and bilateral fornices normal. On per speculum examination cervical os was closed with no vaginal bleeding. Trans abdominal ultrasound was done which showed enlarged uterus with the empty uterine cavity, a gestational sac

(4.56x3.46cm) at the site of the lower part of the anterior uterine wall very close to the site of Cesarean section scar. The cervical canal was empty and adnexa appeared normal in scan the gestational sac was identified as jutting out of the anterior uterine wall and advancing towards the bladder with a thin layer of myometrium separating them. A non-viable embryonic echo was noticed which was measuring corresponding to seven weeks plus three-day gestation. No fluid was seen in the cul-de-sac. Doppler studies were done, the hyperechoic shadow of choriodecidual reaction with increased vascularity strongly suggested caesarean scar ectopic pregnancy with these ultrasound findings present diagnosis of ectopic implantation in the previous Cesarean section scar was made. The patient was counselled regarding the treatment options, but due to the possibility of prolonged follow up period with medical treatment patient opted for surgical intervention. Laparotomy was planned. It was performed with Pfannensteil incision under general anaesthesia. The bladder was adherent to the lower part of the uterus so the peritoneum was incised and the bladder was dissected. The gestational sac was seen bulging at thinned out the lower uterine segment. Only a thin layer of fibromuscular tissue was separating the gestational sac and partially dehiscent scar. After careful and gentle dissection products of conception were removed. Edges of scar tissue were excised, and repaired. Haemostatis was secured. The estimated blood loss was less than 300 ml and there was no need for blood transfusion. The patient had an uneventful postoperative recovery. Histopathological examination of the tissue was done and it confirmed the diagnosis of caesarean scar ectopic gestation Beta human chorionic gonadotrophin levels were repeated until they were normal.

Discussion

There are many aetiologies explaining the occurrence of intramural ectopic pregnancy. As a result of a previous caesarean section or surgical procedure on the uterus or sometimes after manual removal of placenta the blastocyst is implanted into the myometrium through a dehiscent tract, is the most acceptable theory.[7]

Assisted reproductive techniques such as in vitro fertilization and embryo transfer, even in the absence of any previous uterine surgery[9] can also result in intramural implantation[8] and Vial et al.[10] proposed that there were 2 different types of such ectopic pregnancies. In the first type gestational sac that is implanted on the uterine scar, growth is away from the serosal lining, toward the cervicoisthmic space or toward the uterine cavity such a pregnancy can end up to a full-term viable birth, but with an increased risk of life-threatening massive bleeding.

In the second type usually, it is deeply implanted into scar which can progress its growth towards the serosal surface with the risk of impending consequences like rupture and bleeding sometimes even during the first trimester of pregnancy. There is the difference in management options between types of pregnancies. Expectant management is opted if there is communication with uterine cavity because there are good chances that pregnancy may continue until a viable birth. In the second type when growth is towards the serosal surface, if immediate intervention is not considered, the risk of uterine rupture at the end of first trimester and severe bleeding is very high.

As it is a rare condition, there is no definitive approach for different treatment options. Use of systemic methotrexate, local injection of embryocides, surgical sac aspiration, hysteroscopic evacuation, laparoscopic removal, open surgical treatment, and hysterectomy[11] are different treatment modalities that are being used according to clinical scenario of the patient Data available suggests that usually in most of the circumstances expectant management is not the treatment of choice because of significant risk of uterine rupture.[12] Many reports suggest that dilation and curettage are also inadequate

because in these cases trophoblastic tissue is not located in the uterine cavity but actually outside the uterine cavity and unreachable. Enthusiastic attempts can also result in rupture of the uterine scar with serious complications.[13] Although some cases were treated successfully but again there is a risk of potential hemorrhage.

Some case reports suggest that these cases should be managed by elective laparotomy even in absence of bleeding and gestational mass should be excised, the advantage is that when there is resection of the old scar and there is new uterine closure there are lesser chances of recurrence. Treatment with Uterine artery embolization if available is also very beneficial as treatment can be done with minimal hemorrhage.[14] However no treatment modality can ensure uterine integrity.

Cervicoisthmic pregnancy and advancing spontaneous abortion are major differential diagnoses to consider and it is extremely difficult to distinguish between these

entities from a cesarean scar ectopic, and with the advancement of pregnancy, the distinction between cesarean scar ectopic, cervical pregnancy, and low intrauterine pregnancy becomes even more difficult.

Figure 1. Transabdominal ultrasound shows empty uterine cavity and empty cervical canal with a gestational sac with fetal pole in anterior myometrium of lower uterine segment. Myometrium is thinned out anterior to gestational sac

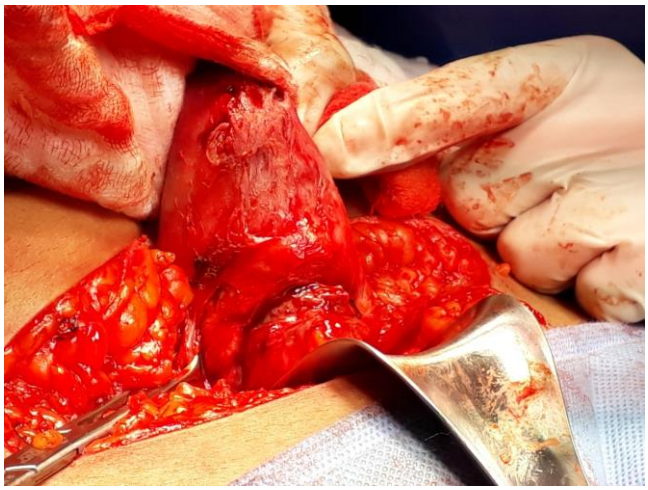

Figure 2. Intra operative image shows enlarged uterus fetus is removed. Excised myometrium shows gestational sac in direct contact with anterior abdominal wall.

Caesarean sections are associated with a future risk for multiple placental pathologies e.g., placenta previa, placental abruption, and placenta acccreta but caesarean scar pregnancy is considered to be even more aggressive than placenta previa or accreta because it can lead to serious consequences such as uterine rupture even as early as the first trimester.[13] Patients undergoing multiple caesarean sections have much increased the risk of in-scar implantation of the subsequent pregnancy because of increased scar surface area. Accurate diagnosis is not only important to prevent life threatening complications but also to preserve the future fertility of the patient. If all scar pregnancies are reported then more accurate data could be attained to measure safety and efficiency of different treatment options.

Conclusion

Caesarean section scar ectopic pregnancy is probably the rarest location for an ectopic pregnancy which can result in complications like uterine rupture and life-threatening hemorrhage. Early diagnosis of caesarean scar ectopic gestation requires Ultrasonography, Doppler flow imaging, confirmation with pelvic MRI if indicated. All sonographers who scan patients in first-trimester pregnancy should be aware of the criteria to diagnose, as cesarean scar ectopic can easily be mistaken with cervicoisthmic pregnancy or spontaneous abortion in progress.

Although expectant management has been attempted in some cases, currently available data support termination of such a pregnancy once the correct diagnosis is made.

References

1. Yildizhan R, Kurdoglu M, Kolusari A, Erten R. Primary omental pregnancy. Saudi Med J. 2008;29:606–609.
2. Ludwig M, Kaisi M, Bauer O, Diedrich K. The forgotten child-a case of heterotopic, intra-abdominal and intrauterine pregnancy carried to term. Hum Reprod. 1999;14:1372–1374. doi: 10.1093/humrep/14.5.1372.
3. Alto WA. Abdominal pregnancy. Am Fam Physician. 1990;41:209–214.
4. Ang LP, Tan AC, Yeo SH. Abdominal pregnancy: a case report and literature review. Singapore Med J. 2000;41:454–457.
5. Maas DA, Slabber CF. Diagnosis and treatment of advanced extra-uterine pregnancy. S Afr Med J. 1975;49:2007–2010.
6. Gaither K. Abdominal pregnancy-an obstetrical enigma. South Med J. 2007;100:347–348.
7. Cheng PJ, Chueh HY, Soong YK. Sonographic diagnosis of a uterine defect in a pregnancy at 6 weeks gestation with a history of curettage. Ultrasound Obstet Gynecol . 2003;21:501e3.
8. Fylstra DL. Ectopic pregnancy within a Caesarian scar: areview. Obstet Gynecol Surv 2002;57:537e43.
9. Studdiford WE. Primary peritoneal pregnancy. Am J Obstet Gynecol. 1942;44:487–491.
10. Wagner A, Burchardt A. MR imaging in advanced abdominal pregnancy. Acta Radiol. 995;36:193–195.
11 Shufaro Y, Nadjari M. Implantation of a gestational sac in a Caesarian section scar. Fertil Steril. 2001;75:1217.
12 Maymon R, Halperin R, Mendlovic S et al (2004) Ectopic pregnancies in caesarean section scars: the 8-year experience of one medical centre.
13 Hum Reprod 19:278–28410. Ash A, Smith A, Maxwell . Caesarean scar pregnancy. BJOG. 2007114:253–26.
14 timor-tritsch IE Monteagudou A, Santos R. The diagnosis, treatment and the follow up of Caesarean scar pregnancy. Am J Obstet Gynecol.2012;207:44.el-13