A Case Report of a Placenta Percreta Occurred at the Site of an Old Perforation Scar at the Uterine Fundus

S A, P I, B J

Citation

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Abstract

Abstract:The incidence of morbidly adhered placenta (MAP) has increased over the last 20 years due to the rising rate of caesarean sections [1]. This is estimated to be 1 in 533 pregnancies [1]. MAP usually occurs in women who have a placenta previa in the current pregnancy, with previous one or more caesarean sections. Placenta percreta invades the full thickness of the myometrium. We have reported a case of placenta percreta, with no previous caesarean section, which developed at the site of an old perforation scar in the uterine fundus.

CASE REPORT

A 40 year old woman was booked under consultant care at ten weeks of gestation in her fifth pregnancy. A diagnosis of breech presentation was confirmed at 36 weeks of gestation. There were no fetal or placental abnormalities reported on antenatal ultrasound scans and the placenta was reported to be fundal.The patient declined serum screening for Down's syndrome. An external cephalic version was attempted unsuccessfully at 37 weeks and the patient opted for an elective caesarean section delivery. In her first pregnancy, she had a vacuum evacuation of retained products of conception after a missed miscarriage at 10 week gestation was diagnosed. One year later, she had a vaginal delivery, complicated by a manual removal of the placenta with 500 mls of blood loss. In her third pregnancy, she had an uncomplicated vaginal delivery at full term. In her fourth pregnancy she opted for a surgical termination of pregnancy at 12 weeks of gestation with a Novagard (Pharmacia U K Ltd, Milton Keynes, UK) intra-uterine contraception device (IUCD) sited at the time of the procedure. The IUCD had stayed in the uterus for 13 years before it was taken out 2 years prior to her last pregnancy at her GP's clinic. Removal of the IUCD was reported to be slightly difficult due to possible embedment in the uterine wall. The patient experienced pain and bleeding for seven days following the procedure. No previous significant medical or surgical history was , otherwise, reported .The patient had the same partner for all pregnancies.

At 39 weeks and 3 days of her fifth pregnancy, the patient was admitted for her elective caesarean section. Preoperative ultrasound scan confirmed breech presentation with a fundal placenta. The baby was delivered through a Joel Cohen incision with no difficulties. The placenta was not deliverable by gentle continuous cord traction. When examining the uterine cavity no placental cleavage was found. Then, the uterus was exteriorised (figure 1). A full infiltration of the uterine muscle and some parts of the covering serosa was noted at the right cornum. A placenta percreta was clinically diagnosed.

Further assessment revealed a fingertip-size area of the uterine wall at the placental site covered only by serosa. There was no placental tissue or uterine muscle underneath seen. This appeared like an old perforation site. (figure 2)

Figure 1

Figure 1: The placenta percreta infiltrated the full thickness of the myometrium at the right cornum. . Note the superficial vessels underneath the uterine serosa.

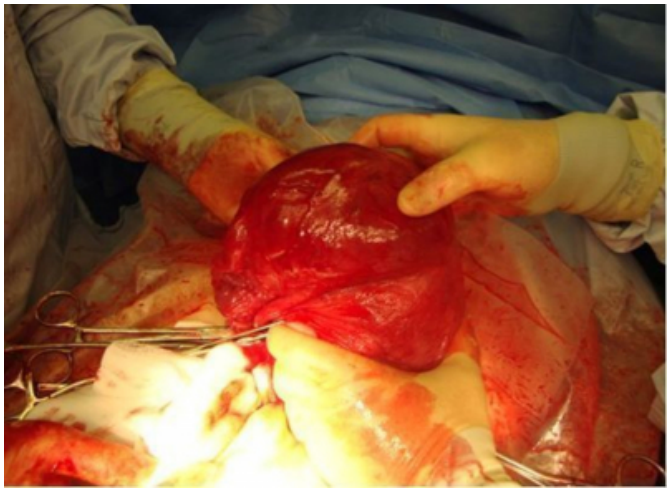


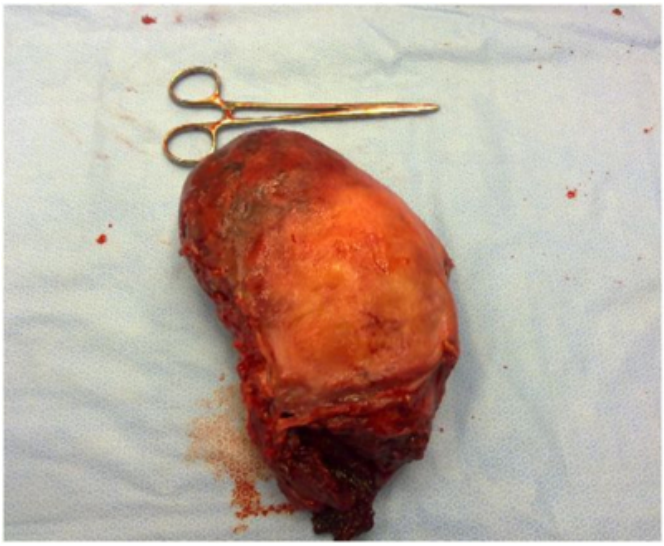
Figure 2

Figure 2: The old perforation scar at the fundus in the centre of the placenta percreta. Note the surgeon's finger tip seen through the very thin serosa(arrow).

Subtotal hysterectomy was undertaken. The patient was discharged home after good postoperative recovery on day three. Histopathology results confirmed the diagnosis of placenta percreta.

Figure 3

Figure 3: The uterus and plcenta percreta after subtotal hysterectomy. Note the site of the placenta percreta at the site of the old perforation scar of the right cornum.



DISCUSSION

Morbidly adhered placenta is a serious obstetric complication of pregnancy that is associated with high maternal morbidity and mortality. This is mainly caused by the massive haemorrhage when trying to deliver the placenta. Placenta percreta is considered to be the severe degree of the spectrum of abnormal placentation, where the placenta invades the full thickness of the uterine wall to reach the covering serosa. MAP is thought to be due to an absence or deficiency of Nitabuch's layer or the spongiosus layer of the decidua.[2]

Recognised risk factors for MAP include advanced maternal age (more that 35), previous one or more Caesarean sections and placenta previa[3,4]. According to Beuker et al., termination of pregnancy was frequently associated with endomyometrial injury, but the relation to subsequent MAP was unclear[5] .In the same study, however, they found that termination of pregnancy to be a risk factor for manual removal of placenta in subsequent pregnancy[5]. In our case the maternal age, previous manual removal of placenta, and previous termination of pregnancy are the suspected risk factor for the placenta percreta. As our patient had an uncomplicated delivery in the pregnancy followed the manual removal of placentaafter, high suspicion arises whether the old uterine perforation found during the Caesarean section hysterectomy led to the fundal placental percreta. The uterine perforation could have happened during the surgical termination of pregnancy, the insertion of

the IUCD, the retrieval of the IUCD or any combination of these events.

Kupferminc et al. found that 45% of women with placenta accreta have elevated MSAFP level in the second trimester of pregnancy [6]. In our case the patient opted not to have the second trimester quadruple screening test for chromosomal abnormalities, so MSAFP was not available to raise the suspicion.

The RCOG suggests that colour flow Doppler ultrasonography should be performed in women with placenta previa, who are at increased risk of placenta accrete [7]. However, there is no enough evidence in the literature to advocate this technique for fundal site placentas.

It is known that a previous caesarean section scar can be a favourite site for placenta accrete [3,4], however there is not enough evidence in the literature on the relation between abnormal placentation and other uterine surgery such as septotomy, myomectomy or dilatation and curettage(D&C).

Placenta percreta at the uterine fundus very rarely occurs. It was estimated in one study that the rate of accreta in patients with placenta previa was 880 per 100,000 placenta previa, compared to a rate of 5 accreta per 100,000 placenta implanting in the upper uterine segment [8].

We speculate that it is possible that injury to the myometrium during instrumentation within the uterine cavity can give rise to the longer term sequelae of MAP.

We think that injuries at the level of endometrium on the other hand are reconstituted completely with no further risk of abnormal placentation in subsequent pregnancies [9]. This is an interesting case that would ascribe significance to a complication, perforation of the uterus after TOP or IUCD, that typically is deemed inconsequential.

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Author Information

Sayasneh A
Obs&Gyn Department, Bedford Hospital

Pandeva I
Bedford Hospital

Brady J
Bedford Hospital