



Case Report

Placenta previa percreta involving the urinary bladder

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Introduction

Placenta previa and placenta accreta have increased frequency in women with scarred uteri. Those with uterine scar and placenta previa are at increased risk for having placenta accreta. Placenta percreta is a rare but potentially catastrophic obstetric emergency¹. Incidence of placenta percreta in our institution is 0.03 per 1000 births. In the management of placenta percreta, the primary consideration is to control potentially lethal hemorrhage. Most often cesarean hysterectomy is the treatment. Intraoperative hemorrhage is problematic if the placenta invades the bladder. Placenta percreta involving the urinary bladder is fortunately a rare condition. When the placenta infiltrates anteriorly through the myometrium and pubocervical fascia, the normal cleavage planes between the placenta and uterus and between the lower uterine segment and the bladder are obliterated. Profuse hemorrhage is common and is responsible for the high maternal morbidity and

mortality rates associated with this condition². We present a case of placenta previa percreta with bladder involvement necessitating cesarean hysterectomy with repair of the bladder.

Case report

A 28-year-old woman, gravida 5, para 2, MTP 2, cesarean deliveries 2, was admitted to emergency ward at 32 weeks gestation for bleeding from a sonographically diagnosed placenta previa. She had a history of an episode of minimal bleeding at 28 weeks of gestation which subsided spontaneously. This bout of bleeding also subsided by conservative treatment and she was kept in the hospital till 37 weeks of gestation. Sonography was done regularly for fetal well being and the sonography done 1 week before the surgery confirmed fetal well being. An elective cesarean section was done on 14th October 2005, after counseling her regarding the possibility of excessive hemorrhage needing blood transfusions and ending in cesarean hysterectomy.

A vertical abdominal incision revealed prominent tortuous vessels on the lower uterine segment and bladder. Uterine incision was made at a little higher level than the previous scar. Placenta had to be cut through to enable the delivery of a 3 kg term baby of with apgar score of 10. At this stage torrential bleeding started. It

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was realized that placenta percreta was bleeding and anterior, uterine wall was totally infiltrated and the placenta had involved the bladder and both parametrium on both the sides. Hence we proceeded with total hysterectomy. After ligation of the upper pedicles attempt was made to mobilize the bladder. There was no plain of cleavage. Both side uterine vessels were ligated. Total hysterectomy was accomplished by entering the vagina posteriorly, and sequentially ligating the parametria medial to the ureter. The adherent portion of the bladder was resected along with the uterus, and the bladder was repaired in two layers. An omental pedicle graft was mobilized into the pelvis to isolate the vaginal cuff from the reconstructed bladder. A pelvic drain was kept. A suprapubic catheter and a urethral catheter were kept in the bladder and the abdomen closed in layers. Estimated blood loss was 2,500 mL. During the surgery 6 units of blood were transfused, besides 500 mL of colloid and 2L of crystalloids. Histology, H & E staining showed presence of placental villi in the full thickness of the myometrium (Figure 1). She was discharged on 23rd postoperative day. Postoperative period was uneventful.

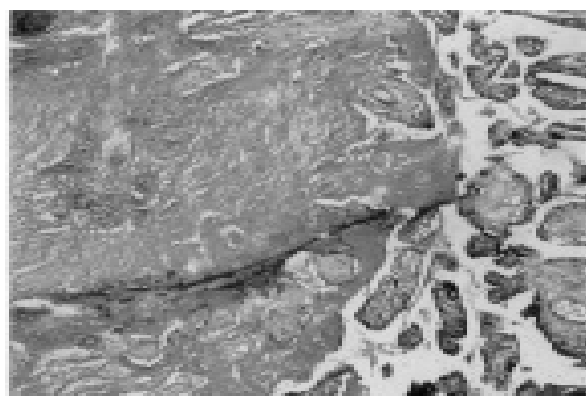


Figure 1. Placental villi and trophoblasts inside the myometrial tissue H & E stain 400x.

Discussion

The term placenta accreta is used to describe abnormal placental implantation with firm adherence to the uterine wall³. The diagnosis of placenta accreta is usually made clinically. Histologic documentation of the abnormal placentation is desirable but frequently not obtainable¹. Placenta percreta is the most severe and life-threatening of the placental accretions in that the infiltrating placenta penetrates

the myometrium and serosa of the uterus and may involve adjacent structures. The incidence of placenta accreta is reported to be between 0.1-2.3 per 1000 births. Incidence of placenta percreta is 0.03 per 1000 births¹.

Irving and Hertig³ in 1937 postulated that placenta accreta is caused by deficiency of the decidua layer¹. Trauma to the endometrium from cesarean or curettage predisposes to abnormal implantation in subsequent pregnancies. The incidence of placenta previa is also increased nearly fivefold in scarred uteri. Those with low placental implantation are also at increased risk for placenta accreta. Zaki et al⁴ found that the incidence of placenta accrete increased linearly from 4.1% in those with no cesarean section to 60% in those with three or more cesarean sections. Very few cases of placenta percreta with bladder involvement have been reported. Although rare, placenta percreta with bladder involvement is a potentially catastrophic disease, with a reported maternal mortality of 20% and a perinatal mortality of 30%¹.

Placenta previa percreta can be diagnosed by ultrasonography but MRI is the more sensitive diagnostic tool for diagnosis of placenta previa percreta.

Successful management of patients with this condition requires surgical extirpation of all the tissue involved by the invasive placenta, aggressive maintenance of intravascular volume and hysterectomy with reconstructive surgery². Pelosi⁵ have reported a case of placenta previa percreta with bladder invasion, managed by a modified cesarean hysterectomy. Descargues et al¹ have reported a case of placenta percreta with bladder invasion treated conservatively with classical cesarean section at term, prophylactic uterine artery embolisation, and manual removal of placenta 12 days postpartum. Price et al² have reported two cases of placenta previa percreta with bladder invasion necessitating cesarean hysterectomy, partial cystectomy and in one case, bilateral ureteral reimplantation. Crespo et al⁶ have reported conservative treatment of placenta in creta with methotrexate.

In our case successful management was possible because of proper preoperative arrangement and management by expert team.

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