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A Rare Case Report of Placenta Percreta

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Abstract: ***Placenta percreta, a rare complication of pregnancy, is associated with significant postpartum hemorrhageoften requiring emergency hysterectomy. Majority of these cases are seen in patients with history of previous LSCS with anterior low lying placenta. Here we present the case of placenta percreta in a woman with a previous LSCS.***

Keywords: placenta percreta, placenta accreta spectrum

1. Introduction

Placenta percreta, the rarest and most severe form of placenta accreta spectrum, occurs when placenta extends through the entire myometrium and uterine serosa. The overall incidence of placenta percreta is extremely low with an incidence of 1 in 21000 pregnancies and majority of these cases are seen in patients with history of previous LSCS with anterior low lying placenta. Here we present the case of placenta percreta in a woman with a previous LSCS.

2. Case Report

A 34 year old G2P1L1 with 26 weeks of gestational age with one previous LSCS came to the emergency with vaginal bleeding. Her previous LSCS was done 4 years back in view of meconium stained liquor with fetal distress. There was no history of previous abortions or suction evacuation. She was booked at a private institute with normal antenatal investigation reports. On examination, her general condition was fair, BP 110/80 mm of Hg in right arm in semi recumbent position, pulse rate 84/minregular and palpable at all peripheral pulses. There was no pallor, icterus, cyanosis, clubbing or oedema. Per abdomen examination was suggestive of a single live fetus with breech presentation and a regular fetal heart rate. Scar tenderness was absent. Per speculum examination showed blood draining through the os. Pervaginal examination, os was 1cm dilated.Initial ultrasound workup revealed grade IV placenta previa with placenta accreta. MRI was advised for confirmation and depth of invasion.

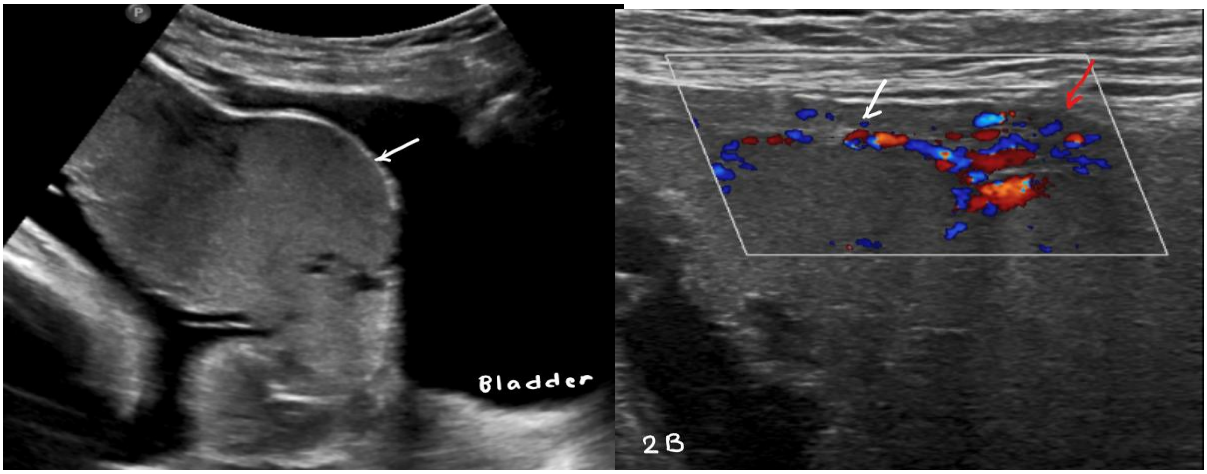

Figure 2 (a): Transabdominal ultrasound grey scale image (curvilinear probe) 2B: Transabdominal color Doppler (linear probe)

Placenta covering internal os (grade IV placenta previa) with loss of retroplacental clear space (Fig 2a white arrow). Multiple tortuous hypoechoic structures within the placenta showing turbulent flow on colour doppler imaging, suggestive of placental lacunae(red arrow).

[Fig 2B-White Arrow: parallel linear vascular channels extending from the placental parenchyma into the myometrium (normal)]

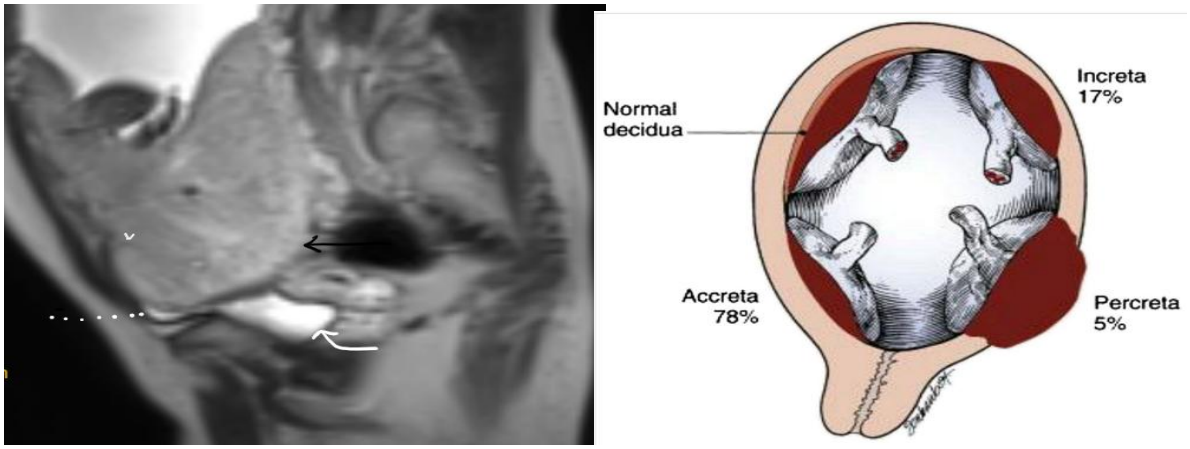

Figure 3: MRI T2W HASTE Sagittal image: Mild placental heterogeneity with focal uterine bulge invading myometrium indentating on posterior wall of urinary bladder.

Focal indistinctness of the uterine myometrium hypointense line (dotted line) a dark T2 intraplacental band (white arrow) at the anterior lower uterine segment.

3. Discussion

There are three stages of abnormal placental attachments depending on the depth of invasion, namely Placenta accreta- the utrine deciduas are absent and the chorionic villi attaches to the myometrium directly. Placenta increta-the chorionic villiinvades into the myometrium. Placenta percreta-the chorionic villiencroach through the myometrium and may permeate to close by organs [1, 2]. Placenta accreta occurs approximately in 1 out of7000 pregnancies [3]. Out of these, about 75-80% are placentaaccreta, about 17% are placenta increta and remaining are placenta Percreta [4].Associated risk factors are previous ceserean section, multiple pregnancies, advanced maternal age, placenta previa, dilatation and curettage, endometritis and repeated abortions [5]. Most common site is the lower uterine segment proximal to the cervical canal. In women with placenta previa undergoing cesarean delivery, the frequency of PAS increases with an increasing number of cesarean deliveries as follows [6]. First cesarean birth- 3 percent, second caesarean birth - 11 percent, third cesarean births- 40 percent, fourth cesarean births- 61 percent. In the absence of placenta previa, the frequency of a PAS in women undergoing cesarean delivery was much lower [7]. First cesarean birth-0.03 percent, second cesarean birth- 0.2 percent, third cesarean birth- 0.1 percent, fourth or fifth caesarean birth- 0.8 percent. Uterine curettage or hysteroscopy, myomectomy, endometrial ablation may result in further localized deciduas defect and consequently abnormal placentation. It is important to note that in a multivariate analysis, placenta previa appeared to be an independent risk factor for PAS (odds ratio [OR] 54; 95% CI 18-166), while prior uterine surgery was not (OR, 1.5, 95% CI, 0.4–5.1) [8]. Interestingly, the sex ratio associated with PAS favors females, which is opposite to the normal sex ratio in the general population, which favors males [8, 9].As is evident by our case, the diagnostic value of sonography in prenatal diagnosis of asymptomatic placenta increta is uncertain. A positive predictive value of 78% and negative predictive value of 94% has been reported by Finberg Et al, but some authors suggested that sonography might detect only around 33% of cases of placenta accrete/increta [10, 11]. Placental lacunae (which appear as intraplacental sonolucent spaces) and disruption of the interface between the bladder wall-uterine serosa (bladder line)are the most reliable diagnostic sonographic findings. Color flow Doppler demonstrating turbulent ("chaotic") flow and/or bridging vessels are valuable confirmatory findings. If the ultrasound studies are inconclusive or ambiguous, magnetic resonance imaging (MRI) may be performed to confirm the diagnosis if this will affect patient management; however, the utility of the additional information gained by MRI is uncertain.MRI may be more useful than ultrasound in two clinical settings: (1) evaluation of a possible posterior PAS because the bladder cannot be used to help clarify the placental-myometrial interface, and (2) assessment of the depth of myometrial and parametrial involvement, and, if the placenta is anterior, bladder involvement. However, increased accuracy beyond that noted with ultrasound is unproven [12], Confirmation can be done by postpartum histopathology which shows placental villi anchored directly on, or invading into or through, the myometrium, without an intervening decidual plate. Surgical intervention has been suggested as the first line of treatment of placenta percreta as hysterectomy is required in approximately 93% of the cases. Conservative management is exclusively used in rare setting of the adjacent organ involvement such as bowel or bladder. Chemotherapeutic agents, especially Methotrexate, have been used with success in several patients. Furthermore, trans cathetere mbolization has been utilized [13]. Legro et al.[14] reported a successful nonsurgical treatment of placenta percreta by Methotrexate chemotherapy in a patient who was able to carry a normal pregnancy 2 years later. In contrast to this study, Butt et al.[15]declared that conservative management with methotrexate chemotherapy is unsuccessful and would result in subsequently sterectomy because of postpartum bleeding. In patients with extreme desire of fertility, functional and anatomical uterine repair may lead to successful pregnancy. But Hysterectomy is the only lifesaving intervention in patients with severe internal bleeding [16]. In a non-severe life-threatening setting with small uterine rupture, surgical uterine repair might be feasible for those patients who have a tendency to remain fertile.

4. Conclusion

Placenta Percreta is a potential life threatening condition for both the mother and the baby. It usually occurs at the site of previous LSCS scar. This case highlights need of detailed placental evaluation at 18-20 weeks scan irrespective of the location of placenta and previous scar. This would enable prenatal screening and diagnosis and help in counselling of the patient and her family regarding the suspected placental abnormality and an appropriate site and plan for delivery can be developed. Preoperative preparation, including availability of surgical and radiological expertise, blood components for transfusion, and appropriate equipment, will improve the maternal and fetal outcome.

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