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## Case Report

# Hysterotomy for Early Placenta Percreta at 10 Weeks Gestation: A Case Report

## Abstract

Placenta percreta in early pregnancy is rare and only few cases are documented. We report a case of placenta percreta at 10 weeks gestation. Sonography revealed absence of line of demarcation between trophoblast and myometrium extending to the urinary bladder region. Termination of pregnancy by hysterotomy was done. The diagnosis and treatment of placenta accreta in early pregnancy must be taken seriously which might protect patients from considerable bleeding and further morbidity.

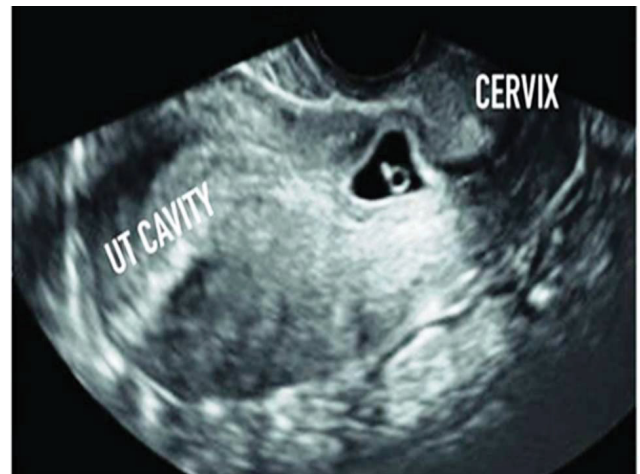
## Case Report

A 26 years old lady who had previously given birth to two children by cesarean sections (CS) and an exploratory laparotomy 10 years before marriage for removal of a complicated ovarian cyst. She was presented with a 2 weeks missed period where trans-vaginal ultrasound revealed a 5 weeks single intrauterine gestational sac equipping the isthmo-cervical portion of the uterus almost at site of the previous caesarean section scar with empty uterine cavity Figure 1. Two weeks later, the sac was still in the same site with positive fetal pulsation and another two weeks later, she started to develop mild vaginal bleeding with mild lower abdominal pain where ultrasound revealed healthy pregnancy with retro-chorionic hematoma 5 × 4 cm. 3 Dimension Ultrasound Doppler revealed the absence of demarcation line between trophoblast and myometrium with the trophoblast reaching as far as the serosa of the peritoneum covering the urinary bladder Figure 2. Termination of pregnancy by laparotomy was performed where the urinary bladder was found completely adherent to the uterus with high vascularity and varicosity covering this area. Bilateral uterine arteries ligation was done before opening the uterus. Small bladder injury occurred during dissection of the urinary bladder, which was sutured later on in double layer. On uterine incision, chorionic tissue was found bulging from site of the scar Figure 3 with a small part adherent to the uterine wall, excision of this part and closure of uterus was done after taking 3 U-shaped sutures in the lower part of the uterus. Patient received 2 units of blood and 2 units of plasma.

## Discussion

Over the last few decades, CS rates have continued to rise [1]. The increasing CS rate stimulated the interest in potential long-term morbidity of CS scars [2].

Placenta accreta (and percreta) are not commonly diagnosed in the first trimester. They are usually diagnosed with the massive bleeding encountered during dilatation and curettage secondary to myometrial invasion by the placenta, unfortunately, a retrospective diagnosis [3]. The suspicion of placenta accreta developed in this case as early as the first ultrasound done showing a low lying gestational sac with empty uterus [2].



**Figure 1:** Trans-vaginal ultrasound done at 6-Weeks gestation showing the sac at the site of cesarean section scar with empty uterine cavity.

To our knowledge, over the past 20 years, the reported cases of placenta accreta diagnosed during the first trimester ( $\leq 12$  weeks), were mostly discovered after the occurrence of severe bleeding either during an abortive curettage and/or during the post abortive weeks Table 1 [4]. This case was diagnosed pre-operatively with ultrasound and Doppler blood flow, with suspicion of percreta which was confirmed intra-operatively.

A low-lying gestational sac adherent to the anterior uterine wall needs to be differentiated from a low-lying sac that is surrounded equally by myometrium, both anteriorly and posteriorly. If cesarean section scar ectopic pregnancy is suspected in this gestational age, the use of methotrexate may be beneficial to avoid further complications like scar rupture or placenta accreta.

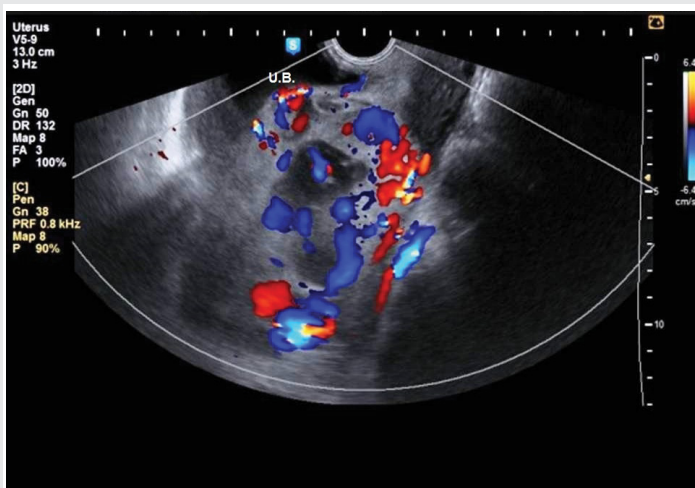
This diagnosis of placenta accreta (PA) is difficult during the first trimester, the currently known prenatal sonographic characteristics of PA low-lying gestational sac with diffuse dilatation of intra-placental vessels (lacunae). Also, PA is suspected if part of the lining of the gestational sac is embedded in the previous CS scar with an irregular decidual layer and thinning of the underlying uterine wall [5,6].

Hysterectomy has been the traditional treatment for PA with

**Table 1:** Summary of case reports diagnosed  $\leq 12$  weeks (between 1990 and 2011) [4].

Presentation during uterine evacuation (n=14)			Presentation during post-abortive period (n=9)		
Author	Year	Treatment	Author	Year	Treatment
Ecker et al.	1992	Hysterectomy	Harden et al.	1990	Hysterectomy
Arredondo et al.	1995	Hysterectomy	Walter et al.	1999	Hysterectomy
Gherman et al.	1999	Hysterectomy	Chanrachakul et al.	2001	Hysterectomy
Haynes et al.	2000	Hysterectomy	Kim et al.	2005	Hysterectomy
Shih et al.	2002	Hysterectomy	Son et al.	2007	Hysterectomy
Höpker et al.	2002	Hysterectomy	Ju and Kim	2007	UAE
Chen et al.	2002	Hysterectomy	Sedigheh et al.	2009	Hysterectomy
Buetow	2002	Hysterectomy	Takeda et al.	2010	UAE
Liu et al.	2003	UAE	Wang et al.	2011	Lap. Resect
Imsail and Toon	2007	MTX			
Papadaskis et al.	2008	Hysterectomy			
Yang et al.	2009	Hysterectomy			
Soleymani et al.	2009	UAE			
Kim et al.	2010	Hysterectomy			

UAE: Uterine artery embolization; MTX: Methotrexate; Lap. Resect: Laparoscopic resection



**Figure 2:** Trans-vaginal 3D ultrasound Doppler showing placental vasculature invading the whole myometrium and reaching the urinary bladder anteriorly.



**Figure 3:** Intact gestational sac with embryo inside and chorionic tissue around and retro-chorionic hematoma is seen with part of the uterine wall excised.

the idea that conservative treatment causes a four times higher mortality rate than treatment with an immediate hysterectomy [7]. However, there is only little experience concerning the treatment of the condition during first trimester; so, the choice between hysterectomy and conservative therapy should be dependent on the severity of bleeding.

Most of the reported cases have used hysterectomy as the standard line of treatment. Yang et al. 2009 [7] performed a “prophylactic” first trimester hysterectomy (at 12 weeks’ gestation) after diagnosis of low implanted PA in a 33-year-old woman, with a history of two previous CS. Bilateral uterine artery embolization was performed preoperatively to reduce expected bleeding during hysterectomy. Other reports indicated that conservative invasive procedures could be adapted to preserve fertility; these procedures included angiographic uterine artery embolization and laparoscopic or surgical resection of the affected area of the uterus [8].

Generally all these methods must be critically considered. In certain settings, uterine conservation, leaving the placenta in situ might be considered. Adjuvant therapy with methotrexate has also been described to expedite the placental resorption [9].

A reduction from 85% to 15% in hysterectomy rates was found that when placental retention was allowed. Morbidities associated with leaving the placenta in situ mainly included infection and coagulation disorder, which may necessitate subsequent hysterectomy [10].

In this case, we adopted early conservative invasive management during early trimester where the patient’s conditions are stable to avoid possible excessive bleeding and high risk for hysterectomy later on and to avoid further possible bladder invasion.

In conclusion, detailed sonographic examination with high suspicion of PA should be considered for women at risk during the first trimester. Early diagnosis may allow earlier elective intervention that decreases maternal morbidity and mortality. Considering the rising rate of CS, the incidence of PA in early gestation will increase. So, clear evidence guiding the screening, diagnosis and management of this condition is needed.

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