

# Placental Adherence to Small Bowel: An Uncommon Appearance of Placenta Percreta; Managed Without Intestinal Resection

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## Abstract

Placenta percreta is an uncommon and potentially fatal condition in pregnancy. It can invade the adjacent structures of uterus including the urinary bladder, rectum, and small bowel. The invasion of bladder is common but that of small bowel is extremely rare. This report presents a case of placenta percreta with small bowel invasion which was managed without intestinal resection.

**Keywords:** Placenta percreta, small bowel invasion, subtotal hysterectomy

## INTRODUCTION

Maternal part of placenta is attached to the decidua basalis in normal circumstances. The deeper penetration into the myometrium is prevented by a tough tissue layer known as Nitabuch's layer. In some cases, this preventive layer is absent and the placentation gets deeper into the myometrium resulting in a condition known as adherent placenta.<sup>[1]</sup> Placenta percreta is a type of adherent placenta, and invasion of small bowel is one of the rarest complications of placenta percreta.<sup>[2]</sup>

## CASE REPORT

A 31-year-old G<sub>4</sub>P<sub>2</sub>L<sub>1</sub>A<sub>1</sub> was admitted at 35 weeks' gestation with complaints of giddiness and increased blood pressure. She was a known case of type 2 diabetes mellitus presently on insulin and chronic hypertension presently on labetalol. She had an episode of acute pancreatitis 3 years back followed by exploratory laparotomy for peripancreatic collection. She had a previous one cesarean section and another intra-uterine death at 8 months. Lower segment cesarean section was done in view of precious pregnancy with diabetes and hypertension. The intraoperative findings revealed placental tissue outside the anterior uterine wall adherent to the urinary bladder anteriorly and gut posteriorly covering the left half of the uterus. There was no defect in the uterine wall. The placenta was seen to derive its blood supply from the adherent gut

wall [Figures 1 and 2]. The umbilical cord was seen piercing the anterior uterine wall to attach on the fetus. The fetus was inside the uterus delivered by giving Kerr's incision. All these findings were missed on routine antenatal ultrasonographic scans. The urologist and general surgeon were called upon who dissociated the uterus from the gut and bladder without any resection of the intestines. This was followed by subtotal hysterectomy. Catheter was kept for 7 days and the postoperative period was uneventful.

## DISCUSSION

Adherent placenta is of three types: placenta accrete – it is attached to myometrium without any penetration (most common – 75%), placenta increta – penetration of the myometrium (17%), and placenta percreta – the rarest form of all (8%) in which placenta perforates the entire myometrium to the uterine serosa.<sup>[2]</sup>

In some cases of percreta, there occurs invasion of adjacent structures including rectum, bladder, and small bowel. The risk

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**Figure 1:** An intraoperative image showing the placenta (white star) in continuity with the anterior uterine wall (black star) and the umbilical cord coming out through the Kerr's incision (arrow)

factors for placenta percreta include previous cesarean section, previous myomectomy, advanced maternal age, multiparity, and history of endometrial curettage. In the past few years, the incidence of adherent placenta is seen increasing probably due to increase in the incidence of cesarean section. There are only few cases of placental adherence to small bowel reported in the literature, whereas patients having urinary bladder wall invasion are more common.<sup>[3]</sup>

The antenatal diagnosis of this condition is important in formulating a management plan to decrease maternal morbidity or maternal/fetal mortality. The diagnosis can be made by ultrasonography and magnetic resonance (MR) imaging. The ultrasonography findings include the absence of normally apparent retroplacental hypoechoic line as an indication of placental adherence. In cases of bladder invasion, placenta may be seen indenting upon the bladder or protruding into it. In cases of bowel invasion, the gut loops may be seen adherent to placenta which may also result in bowel obstruction. The presence of an increasing number of lacunae in the placenta has also been shown to be a good predictor of adherent placenta on sonography. Unfortunately, the condition in the present case was not diagnosed on the prenatal ultrasonography. MR imaging is relatively more specific and sensitive than sonography in the diagnosis of various types of adherent placenta.<sup>[4,5]</sup>

The placenta percreta may result in a morbid obstetric hemorrhage, and definitive management plan is to be kept ready to reduce it. The preferred management in cases of placental adherence includes a timely cesarean section with hysterectomy. In the present case, partial hysterectomy was done. In cases of bladder invasion, sometimes there is a need of partial cystectomy. When the bowel is involved, it may result in obstruction. It is frequently managed by bowel resection and reanastomosis but that predisposes to further adhesions.<sup>[1,6]</sup> In



**Figure 2:** Intraoperative image placenta (black star) adherent with the intestines deriving the blood supply (arrows)

the present case, bowel invasion was managed by separation without resection.

## CONCLUSION

Placental adherence with invasion of bowel wall is an extremely rare condition which must be diagnosed prenatally by ultrasonography or MR imaging. The obstetricians and radiologists need to be well aware of the modalities capable of diagnosing this condition so that patient prognosis is improved.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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## Conflicts of interest

There are no conflicts of interest.

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