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Research Paper

Placenta Increta in a clinically diagnosed Placenta Accreta: A case report

Medical Science

KEYWORDS : Placenta accreta, Hysterectomy, Placenta increta, Placenta percreta

Dr.Shilpi Sahu	Associate Professor, Department of Pathology MGM Medical college, Kamothe, Navi Mumbai
Dr.Reeta Dhar	Professor &HOD, Department of Pathology MGM Medical College, Kamothe, Navi Mumbai
Dr.Kuldeep Singh	Second year resident, department of Pathology MGM Medical college, Kamothe, Navi Mumbai

ABSTRACT

Placenta accreta is abnormal adherence of placenta to uterine wall. Incidence of placenta accreta has been rising because of increased rate of caesarean sections and dilatation and curettage (D&C) as well as advancing maternal age. Here we report a case of clinical placenta accreta, which on histopathology got reported as placenta increta. Placenta accreta is a serious obstetric condition having high mortality and morbidity and causing complications like severe post partum haemorrhage and peripartum hysterectomies. Diagnosis of placenta increta and percreta depends on depth of invasion in hysterectomy specimen and thus clinical accreta may be placenta increta or percreta histopathologically.

Introduction:

Placenta accreta is abnormal adherence of the placenta to the uterine wall. Chorionic villi are abnormally contiguous with or actually extend into the basal myometrium. Depending upon grade of invasion it is divided in three grades i.e. placenta accreta vera, placenta increta and placenta percreta[1]. The condition is increasing in incidence by the presence of scar tissue i.e. Asherman's syndrome, usually from past uterine surgery[2]. Most commonly it presents in third trimester of pregnancy. Placenta accreta is an obstetric condition with management challenges and significant mortality and morbidity. Obstetricians have to be aware of this condition and its risk factors as forceful separation of placenta can result in profuse blood loss from the site of placenta accreta. Third stage of labor is invariably complicated by severe postpartum haemorrhage requiring extensive life-saving surgical interventions viz. Hysterectomy, ligation of major pelvic blood vessels and blood transfusion.

Case report:

A thirty-four old female, at 32 weeks gestational age, presented with acute abdominal pain and vaginal bleeding. She had previous history of dilatation and curettage. She did not have any other medical problem. Emergency LSCS was done followed by manual removal of placenta in piece-meal. Baby was still-born. Placenta was found to be firmly adhered to the uterine wall and entire placenta could not be separated. Patient continued to bleed profusely and thus hysterectomy was done. A clinical diagnosis of Placenta Accreta was made.

Gross Findings:

We received specimen of the uterus, bits of adhered hemorrhagic placenta, cervix, left fallopian tube and ovary; weighing 780 grams. Size of the uterus was 11x8x3 cm. Endometrium was 0.2 cm. in thickness. Endometrial cavity was markedly dilated with hemorrhagic patches. Myometrium was 3 cm in thickness. Cervix was 6.5x3x1 cm. Endocervix showed multiple necrotic areas. Ectocervix was unremarkable.

Figure1 Shows cut section of uterus showing bits of adhered placenta (arrowhead).

Microscopy:

H&E stained sections from the wall of uterus showed myometrium and placental villi lined by cytotrophoblasts and syncytiotrophoblasts with focal areas of decidualisation. Placental villi showed infiltration into the myometrium. Decidua basalis is deficient. Haemorrhage and necrosis was also seen. Masson Trichome stain confirmed the infiltration of chorionic villi within the myometrium. Diagnosis of Placenta Increta was given histopathologically.

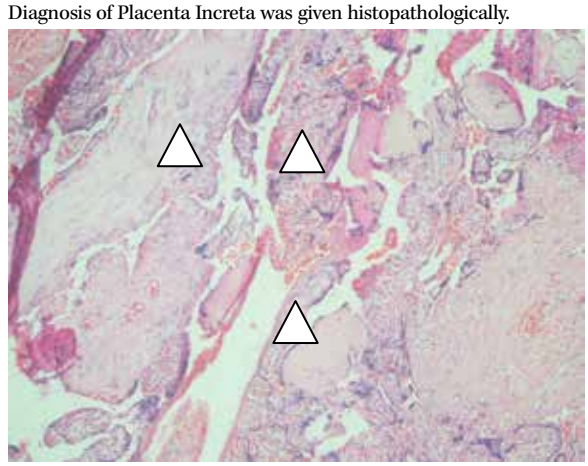

Figure 2 Shows chorionic villi (arrowhead) infiltrating into the myometrium (arrow) at 10x resolution.

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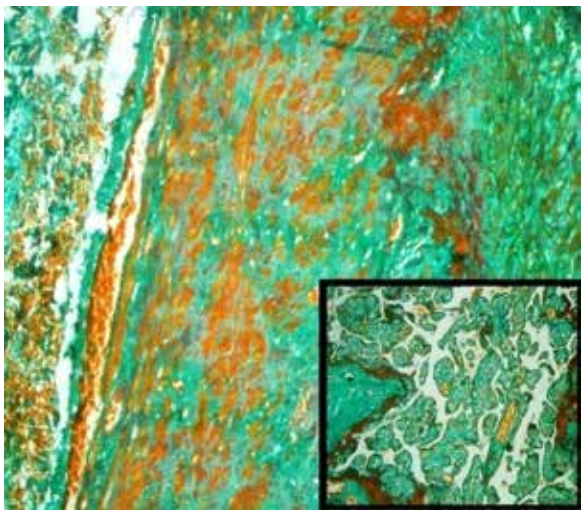

Figure 4 Shows Masson trichrome stain myometrial smooth muscles (red).

Inset shows chorionic villi (green) at 40x resolution.

Discussion:

Placenta accreta is abnormal adherence of placenta to the uterine wall, after delivery of the infant. It may affect a portion or entirety of the placental maternal surface. Its pathological basis is partial or complete deficiency of the deciduas basalis and Nitabuch's membrane of fibrinoid, such that chorionic villi are abnormally contiguous with, or actually extend into, the basal myometrium. Usually, the decidua parietalis is also deficient. Depending on depth of penetration three forms of placenta accreta are recognized[1].

1) Placenta accreta vera –it is most common form. In this chorionic villi are attached to, but do not penetrate, the myometrium.
2) Placenta increta- In this villi show infiltration within the superficial or even deeper myometrium.
3) Placenta percreta- in this entire myometrium including the uterine serosa is penetrated by chorionic villi. In placenta percreta, there can be extension into neighbouring organs such as the urinary bladder and bowel.

The reported incidence of placenta accreta has increased from approximately 0.8 per 1000 deliveries in 1980s to 3 per 1000 deliveries in the past decade. The incidence varying between 1 in 540 and 1 in 93000 with an average of 1 in 700[2]. Incidence of placenta accreta is on the rise due to increased number of caesarean sections. In 2002, American Congress of Obstetricians and Gynaecologists (ACOG) estimated that incidences have increased 10-fold over the past 50 years[3]. One study at the University of Chicago, showed, between 1982 and 2002(before the greatest rise in caesarean birth) the overall incidences of placenta accreta was 1 in every 533 deliveries[8].

Risk factors for all forms of accreta include history of uterine trauma including prior caesarean section, dilatation and curettage, myomectomy, advanced maternal age, post-partum uterine infection and sepsis, abnormal location of the placenta e.g. placenta previa[1].

Clinical presentations are severe abdominal pain and severe post partum haemorrhage. Spontaneous rupture of the uterus due to placenta accreta is the most urgent obstetrical complication resulting in rapid exsanguinations and high mortality which is more commonly seen in the third trimester and is very rare in second trimester[4]. Placenta accreta is a great feared obstetric complication as it may leads to, consumptive coagulopathy, extensive haemorrhage, urinary complications and emergency hysterectomy.

On microscopy Haematoxylin-eosin stained sections from uterine wall shows frank infiltration of villi within the underlying myometrium. For the pathologist, it is important to emphasise that clinical Placenta accreta may be accreta or increta histopathologically, and mild accreta in particular may be focal[5, 6].

A diagnosis of placenta increta or percreta rests on the respective demonstration of partial or complete penetration of myometrium by chorionic villi. A diagnosis of either of these forms can only be made on hysterectomy specimens[7].

In our case patient was thirty-four year old female with no history of previous caesarean section. However, less significant factors like advancing maternal age and history of curettage may have been the cause in this patient. Clinician suspected placenta accreta which on histopathology was found to be placenta increta.

Conclusion: Placenta accreta is abnormal attachment of placenta to the uterine wall which is a rare obstetric complication that is associated with high mortality and morbidity. It may cause uterine rupture when presented in third trimester of pregnancy. Management is generally partial or complete hysterectomy. Individuals with risk factors for placenta accreta or percreta at term should be investigated early in pregnancy because forceful separation of placenta in such case causes life threatening intraoperative bleeding and DIC. Histological examination is necessary to differentiate between placenta accreta, increta and percreta.

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