

## Editorial

# Pregnant Women presented with Placenta Accreta Spectrum Disorders: Bangladesh Perspective

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Placenta accreta spectrum (PAS) also known as morbidly adherent placenta refers to the range of pathologic adherence of the placenta with its degree of invasion to the myometrium; placenta accreta when placenta invades the decidual layers, placenta increta when it invades the myometrium and placenta percreta when it invades up to the uterine serosa and adjacent organs<sup>1</sup>. Among them placenta percreta is most difficult to treat. It is associated with severe life-threatening hemorrhage often requires hysterectomy resulting increased maternal morbidity as well as mortality, loss of future fertility and adverse maternal outcome. The rates of PAS are increasing. Observational studies from 1970 and 1980 s describes the prevalence of placenta accreta as between 1 in 2510 and 1 in 4017 compared with a rate of 1 in 533 from 1982 to 2002<sup>2</sup>. The incidence of PAS (placenta accreta spectrum) has gradually been increasing with the increase rate of caesarean section throughout the world as placenta accreta found in (79%), placenta increta (14%) and placenta percreta (7%)<sup>2,3</sup>. For woman with placenta praevia, the risk of placenta accreta is 3%, 11%, 61% and 67% for the first, second, third and 4th fifth or more caesarean sections respectively<sup>3</sup>.

The most favoured hypothesis regarding the aetiology of placenta accreta spectrum is any defect in the endo-myometrial interface leads to a failure of normal decidualization like in the uterine scar, which allow abnormal deep placental anchoring villi and trophoblast infiltration<sup>4</sup>. Among the types placenta percreta is the dangerous one in the form of transmural extension of trophoblast to the surrounding organs such as urinary bladder and rectum results complexity in management. The diagnosis of PAS disorders requires clinical assessment of high-risk cases during regular antenatal visit with supportive investigations and finally evidences of

gross placental invasion at the time of surgery. Histological diagnosis of peripartum hysterectomy confirms the diagnosis. Antenatal diagnosis and patient assessment can be done by grey scale ultrasonography (TVS/TAS) with or without colour doppler sonography and MRI. Ultrasonography signs of PAS vary with gestational age, thickness of placental bed, number of prior uterine scar, depth of invasion and lateral extension of villous tissue<sup>5</sup>. The grey scale abnormality that are associated with placenta accreta spectrum includes multiple vascular lacunae within the placenta, loss of normal hypoechoic zone between the placenta and myometrium, decreased retro placental myometrial thickness (less than 1 mm), abnormalities of uterine serosa-bladder interface and extension of placenta myometrium, serosa and urinary bladder<sup>6,7</sup>. The use of colour Doppler imaging shows turbulent lacunar blood flow, increased sub placental vascularity, gaps in myometrial blood flow and vessels bridging placenta and to the uterine margin<sup>6,7</sup>. Magnetic resonance imaging can be helpful in difficult cases with an overall sensitivity 94.4% and specificity 84%<sup>8</sup>. The imaging shows dark intra placental bands on T<sub>2</sub> weighted imaging, abnormal bulging of placenta, abnormal and disorganized placental blood vessels<sup>8</sup>.

Patient with PAS disorders often present with mild to moderate APH, anaemia and haematuria in case of bladder invasion. So high risk cases should be evaluated in special settings and delivery should be planned with adequate preparation. Placenta praevia with history of previous caesarean section or uterine scar should be evaluated carefully. It is preferable to do caesarean hysterectomy leaving the placenta in situ without any attempt of separation and this reduce the amount of intra operative haemorrhage and need of blood transfusion<sup>9</sup>. Placenta percreta with urinary bladder invasion needs obstetrician

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-surgeon team approach. Expectant management in selective cases for the purpose of uterine conservation with techniques like uterine devascularization, uterine artery balloon placement embolization or ligation, postdelivery methotrexate etc. associated with risk of haemorrhage, local necrosis septicemia and drug related toxicity. In Bangladesh like other Asian countries the caesarean section rate is increasing. It is done in almost all the Upazilla Health Complexes and in remote private sectors in our country. With the increasing trend of caesarean section, the risk of PAS disorders is found frequently in hospital settings although exact data is not available. Zesmin et al<sup>9</sup> in their study shows the outcome of placenta accreta management by peri partum hysterectomy.

Parvin and Hossain<sup>10</sup> also had a study on foetal outcome in PAS disorders. The consciousness of regular antenatal checkup of high-risk cases like post caesarean pregnancy is still very much lacking. Particular attention must be taken in case of anterior placenta praevia with history of previous caesarean section. Antenatal diagnosis by ultrasonogram specially colour doppler facility is not available in all settings. MRI is expensive also. So, patients having multiple caesarean sections and other high-risk cases often missed in diagnosis. Unplanned surgery or lack of expertise in management of the PAS cases may result in severe per-operative haemorrhage complicating surgery resulting maternal disability and often death. So, awareness building about the gravity of the condition is necessary among risk group. Risk assessment and referral to higher centers for antenatal diagnosis, planned surgery with expert team can reduce the morbidity and mortality associated with this catastrophic condition.

Obstetricians must be alert about the condition and should take timely and necessary measures. A management protocol is to be developed to follow the relevant sectors.

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Creating awareness and increased vigilance among the risk group so that delivery can be done in equipped hospitals with provision of blood transfusion, combined obstetrician-surgeon team facility, good anaesthesia, elective and timely caesarean section with intensive care support is necessary and lifesaving

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