*Case Report*

# Morbidly Adherent Placenta in an Unscarred Nigerian Uterus: A Case Report and Review of Literature.

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**ABSTRACT**

Morbidly adherent placenta (MAP) is a rare but potentially life-threatening complication of pregnancy that can results in massive obstetrics hemorrhage and often leads to hysterectomy. It is associated with maternal and fetal morbidity and mortality. One-third to one-half of all emergency postpartum hysterectomies are performed as a result of adhesive placental disorders.
The prognosis of MAP can be improved with prenatal diagnosis, which has been shown to reduce morbidity by 50% however, only half of MAP cases are diagnosed prenatally. Management could be conservative or surgical. We report a case of morbidly adherent placenta in a 24 years old G1P0+0 Nigerian nulliparous lady that was diagnosed intra-operatively.

**Keywords:**

## INTRODUCTION

Morbidly adherent placenta (MAP) is a rare but potentially life-threatening complication of pregnancy that can results in massive obstetrics hemorrhage that often leads to hysterectomy.[1] It is associated with maternal and fetal morbidity and mortality, other consequences that can arise include need for blood transfusion, prolong hospital stay, injury to the bladder or bowel, multiple organ failure, increasing Intensive Care Unit AND Secial Care Baby Unit admission, prolong anesthesia and obstetrics hysterectomy.[2,3,4] The rise in caesarean section rate has increase the incidence of morbidly adherent placenta.[3,4] The risk of placenta accreta increases to 4%, 11%, 40%, and 61% with one, two, three and four previous cesarean sections respectively.[5] Prenatal diagnosis of morbidly adherent placenta provides the opportunity to prepare for delivery at a centre with adequate expertise and resources, and this has lead to reduction in maternal and fetal morbidity and mortality.[6] We report a case of morbidly adherent placenta in a 24 years old Nigeria nulliparous lady who was diagnosed intraoperatively.

Received: 25/02/2026
Accepted: 12/03/2026
Published: 20/03/2026

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**The Case**

She was Mrs. AS a 24 years old G1P0+0 lady who was referred from a primary health centre on the need for abdominal delivery after 36 hours of active labour at 39 weeks 5 days gestation, she had presented in labour at the referral centre 24 hours prior to her presentation on account of labour pain of 5 hours duration and liquor drainage of 2 hours duration. She perceived fetal movement at presentation and had no history of bleeding per vaginum.

Mrs AS booked for antenatal care at referral centre at 16 weeks gestation and had no complaints at booking. Her booking blood pressure was 110/56mmhg and was normal. Her blood group was O Rhesus D positive and genotype was AA, random blood sugar was 99mg/dl and other serological evaluation and urinalysis were essentially normal. Her first and only obstetrics scan during her antenatal care was at 28 weeks gestation and was said to be normal.

Pregnancy was desired and spontaneously achieved after her first coital exposure in life. Mrs AS had 4 antenatal care visits before the onset of labour pains. During these periods, she received two doses of intramuscular tetanus toxoid injections at 16 and 20 weeks respectively and a dose of pyrimethamine and sulfadoxime for intermittent preventive treatment at 28 weeks. Her antenatal care period was uneventful. There was no history of vaginal bleeding or spotting, no history of haematuria nor other urinary symptoms and unusual abdominal pains during her pregnancy. She perceived fetal movements before and during the onset of labour pains and following her referral.

She was recently married in a monogamous setting to a 30 years cleagyman. She was not a known diabetic and hypertensive and she does not take alcohol or used tobacco in any form. Mrs AS has not had any uterine or abdominopelvic surgery in the past.

At presentation, a quick and detailed evaluation was done. She was febrile with a temperature of 37.9°C, anicteric but not dehydrated with a bilateral pitting pedal edema up to the knee, she had a body mass index (BMI) of 32kg/m$^2$. Her SPO2 at room air was 99%, respiratory rate was 28 cycle/min, blood pressure was 126/72 mmhg. The chest was clinically clear and the abdomen was uniformly enlarge with a uterus of 40 weeks pregnancy size. There was a singleton fetus in longitudinal lie, cephalic presenting. The presenting part was 3/5 palpable per abdomen, clinical estimated fetal weight was 4520g and the fetal heart rate was 168 – 171 beat per minutes. She had a normal vulvar and vagina. The cervix was 6 centimeter dilated and some evidence of caput succedaneum, but no moulding. A quick bed side ultrasound scan confirmed a viable term fetus with an estimated fetal weight of 4,350g. A Doppler ultrasound was not done. An assessment of a nullipara at term with suspected fetal macrosomia and cephalo – pelvic disproportion with fetal distress was made. Patients and husband were counseled on findings and the need for immediate abdominal delivery following resuscitation. Resuscitative measures were instituted. Anaesthetist, neonatologst and other supportive staff were invited. A written informed consent was obtained, two unit of blood was grouped and crossed matched and her packed cell volume was 34%.

At surgery, after the delivery of a 4,250g female baby, the placenta was difficult to deliver, on closer examination the placenta was morbidly adhere to the uterus deep to the myometral layer and attempt at manually removal of the placenta resulted in torrestial haemorrhage that yielded no response to all conservative measures including B-Lynch method. Following failure to secure adequate heamostasis, patient under epidural anesthesia and husband were further counseled on the challenges and the need for more radical and definitive measures such as subtotal hysterectomy to curtail the primary post partum haemorrhage and prevent maternal mortality, they consented. She subsequently had caesarean hysterectomy done. This was able to curtail the massive heamorrhage due to primary postpartum haemorrhage from morbidly adherent placenta in an unscarred uterus. Post operative period was managed based on the protocol was uneventful. She did well and was discharged home on her fourth post operative days along with her macrosomic baby that was managed by the neonatology.

**Discussion**

There are several causes of primary post partum heamorrhage, the most common cause is uterine atomy.[7] Others are morbidly adherent placenta, tissue factor, clotting factor among others.[7] In this patient the cause of primary postpartum haemorrhage was morbidly adherent planceta. It occurs when normally sited placental invasively penetrates the decidua basalis of the endometrium due to defect in the nitabuch layer.[3] This results in catastrophic heamorhage that threaten the live of the mother and even baby.[3] This placental invasion could be placenta accreta and increta both account for 90 percent of morbidly adherent placenta and placenta percreta which accounts for 10% of morbidly adherent placentae, where there is penetration through the entire myometrium and uterine serosa with possible invasion into other organs like the rectum, bladder and rarely, the broad ligament that may lead to difficult placental extraction in both exteriorized and non exteriorized uterus.[8] This patient had placenta increta. Incidence of morbidly adherent placenta has increased dramatically from 1:2500 to 1:110 deliveries

over the last few years.[7] This increase in incidence is largely due to increasing rate of caesarean section. Other risk factors for development of morbidly adherent placental include advance maternal age, placenta previs, and other uterine surgeries like myomectomy and D and C. this patient had no history of uterine surgery or D and C.[6] Diagnosis of morbidly adherent placenta can be during the antenatal period or at delivery, but definitive diagnosis is made at histology.[9] During the antenatal period an ultrasound scan with grayscale and color Doppler imaging, is the recommended first-line modality in patients with risk factors. Findings of Morbidly Adherent Placenta include non-visible Cesarean section scar, bladder wall interruption, thin retroplacental myometrium, presence of intraplacental lacunar spaces, presence of retroplacental arterial-trophoblastic blood flow, and irregular placental vascularization demonstrated by three-dimensional (3D) power Doppler.[2,9,10] This was not done for Mrs. AS as there was no identifiable risk factors and more so, her antenatal care was supervised at the primary health care centre. Some biochemical marker that can aid the diagnosis of morbidly adherent placenta has been postulated but findings are inconclusive.[9,11] Clinical presentation of patients with diagnosis of morbidly adherent placenta include antepartum hemorrhage, acute abdomen and abdominal pain while intrapartum it usually manifests as massive hemorrhage, retained products of placenta and uterine rupture.[9] Management of this condition could be conservative or surgical ( hysterectomy). Conservative approach may be followed by medical management with use of methotrexate and antibiotics, internal iliac ligation, uterine artery embolization, D & C or hysteroscopic loop resection. Surgical management involves caesarean hysterectomy with or without bowel or urinary bladder resection.[7,12] Mrs. AS had subtotal hysterectomy without bowel or urinary bladder resection after a failed conservative measure. Though the measure was radical, it was a life saving Mrs AS. Mrs AS, will no longer be able to get pregnant due to the subtotal hysterectomy that she had but there are other ways to complete her family size if she is still desirous of pregnancy, this include surrogacy and adoption Morbidly adherent placenta is live threatening complication of pregnancy that can result in maternal and fetal morbidity and mortality if not handled with care.

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