



Central Placenta Previa with Rh Negative Pregnancy with IUD

Authors

Dr Anupriya¹, Dr Soma Bandhyopadhyay², Dr Sipra Singh³

¹PGT 2nd year, Dept. of Obstetrics & Gynaecology, KMCH

²Professor, Dept. of Obstetrics & Gynaecology, KMCH

³Professor, Dept. of Obstetrics & Gynaecology, KMCH

Introduction

Placenta previa is one of the leading cause of maternal morbidity and contributes to perinatal mortality.^[1] It is defined as a condition where the placenta is implanted in lower uterine segment, partially or totally covering the cervical internal os. Complete placenta previa occurs when the placenta covers the internal os even after it is fully dilated. Its incidence ranges from 0.5-1% among hospital deliveries.

Intrauterine death is related to severe degree of separation of placenta with maternal hypovolemia and shock. It also occurs due to acute placental insufficiency. The fetal deaths related to placental causes accounts for 20-35%.

Rh incompatibility refers to discordant pairing of maternal and fetal Rh type. It is associated with the development of maternal Rh sensitization and hemolytic disease of neonate (HDFN). The incidence of the disease however is now on decline from 1.3-1.7% in 1980's to 0.17% in 1990's. The fetal death occurs due to cardiac failure.

Aim

To present a case of central placenta previa with Rh negative pregnancy with IUD who underwent lower segment cesarean section.

Setting: Department of Obstetrics and Gynaecology, Katihar Medical College and Hospital, Katihar.

Case Summary

A, 24 year old primigravida with 9 months of amenorrhea presented in obstetric casualty with chief complains of bleeding p/v and decreased fetal movement since 2 days. The bleeding was recurrent and was not associated with pain. She also had h/o spotting p/v in 1st trimester.

On Examination

B.P- 100/80mmHg

P/R- 110b/m

Temp- 98.6°F

Pallor +

Per abdomen- Fundal height- 32-34 weeks size

Head- not engaged

FHS not localized by stethoscope or CTG

Per vaginal- examination not done

Investigations

Hb%- 9.0

Platelet count- 1.2L/cumm

Blood group- O Negative

HIV- non reactive

HbsAg- non reactive

Anti HCV- non reactive

TLC- 15,000/cumm

Sr. Bilirubin- 0.8mg/dl
 SGOT- 24units/l
 SGPT- 20units/l
 Sr. Urea- 24mg/dl
 Sr. Cratinine- 0.8mg/dl
 USG- Single non viable fetus of 34 weeks 2 days of period of gestation with complete placenta previa with oligohydramnios.

Operative Procedure: After all preliminary investigation patient was taken for emergency cesarean section. Under S/A with aseptic and antiseptic precaution patient was laid in supine position. Abdomen was painted & draped. A low lying transverse incision was given 2.5cm above pubic symphysis. Abdomen was opened in layers. Loose UV fold was dissected & bladder was pushed down. A nick was given over uterus. A single IUD female baby was delivered on 27/11/20 at 7:30 pm. Early cord clamping done and cord was cut. Placenta and its membrane was taken out completely. Uterine cavity was explored. Uterus was repaired in 2 layers. Hemostasis was achieved. Betadine vaginal toileting was done. 4 tablets of Misoprost was given per rectally. Cord blood sample was taken and sent to the laboratory for blood grouping and Rh typing.

Post Operative Period

She was given injectable antibiotics. Two units of blood transfusion was done. This period was uneventful and she was discharged on 8th post operative day. She was given Inj. Anti D within 72 hrs of LSCS after knowing the baby's blood group to be O positive.

Discussion

Pathophysiology: Central placenta previa occurs due to a theory called as "Dropping down theory". This theory explains that the fertilized ovum drops down and is implanted in the lower segment due to poor decidual reaction in the upper segment. It is a type 4 placenta previa & comes under major degree of placenta previa. Risk factors for

maternal morbidity includes complete previa, h/o previous cesarean section, emergency CS, at gestational age of <37 weeks, estimated blood loss >200ml.

Rh incompatibility can occur by two main mechanisms. The most common type occurs when Rh negative pregnant mother is exposed to Rh positive red cells secondary to fetomaternal hemorrhage during the course of pregnancy from spontaneous or induced abortion or trauma, invasive obstetric procedures or normal delivery. It can also occur when a Rh negative female receives a Rh positive blood transfusion. Alloimmunization is a phenomenon which becomes clinically significant if a mother who is Rh negative, gets sensitized to the D antigen and subsequently produces anti D antibodies (that binds to and potentially leads to destruction of Rh positive erythrocytes).

Intrauterine death of fetus includes all fetal deaths weighing more than or equal to 500gms occurring during pregnancy or labor or antepartum deaths occurring beyond period of viability. The survival of fetus in utero depends on several factors such as condition of the environment in which the fetus lives, the absence of lethal fetal factors & well being of the host's environment with the function of uteroplacental unit. A single insult or a combination of factors may affect the function of these life sustaining factors leads to IUD^[2]

Symptoms:

- Painless recurrent vaginal bleeding
- Decreased fetal movement

Signs

- Fundal height not corresponding to the period of gestation
- Uterus feels soft and flaccid
- The fetal head is floating & the fetal movements are not felt on palpation
- The fetal heart sounds are not localised by stethoscope or cardiotocography (CTG).

Diagnostic Evaluation

Sonography- TVS is more safe and accurate than TAS. Complete placenta previa is diagnosed in 2nd trimester which persists into 3rd trimester in 26% of cases.

In this case she was diagnosed at 33 weeks of POG with complete placenta previa. At 34 weeks of POG, there was no fetal movements on USG (non viable fetus) along with oligohydramnios & complete placenta previa.

Conclusion

With improving obstetric services, the reduction maternal mortality rates from placenta previa in recent years is due to good antenatal care, early detection of placenta previa by ultrasound, increased use of blood transfusion, antibiotic therapy but still it is an important cause of perinatal morbidity and mortality. 1st & 2nd trimester ultrasound evaluation may be helpful in ruling out placental disorders implicated in IUD. Better intrapartum fetal monitoring for high risk cases leads to prevention of IUD. The main principles of management of Rh incompatibility is the prevention of maternal sensitization. Rh D immunoglobulin (RhIg) has made a significant impact on preventing from this disease. RhIg consists of anti-Rh D antibodies that targets Rh-positive erythrocytes to prevent sensitization, It has reduced the rate of maternal alloimmunization from 16% - <1%. Furthermore, RhIg immunoprophylaxis has decreased the prevalence of HDFN attributed to anti-D antibodies to <1%.

Bibliography

1. Iyasu S, Saftlas AK, Rowley DL, Koonin LM, Lawson HW, Atrash HK, The epidemiology of placenta previa in the United States , 1979 through 1987. American Journal of Obstetrics & Gynaecology. 1993;168(5):1424-9.
2. Bukowski R, Hansen NI, Pinar H, Willinger M, Reddy UM, Parker CB, Silver RM, Dudley DJ, Stoll BJ, Saade GR, Koch MA, Hogue C, Varner MW,

Conway DL, Coustan D, Goldenberg RL., Eunice Kennedy Shriver Natinal Institute Of Child Health and Human Development (NICHD). Altered fetal growth, placental abnormalities and IUD. 2017;12(8):e0182874.