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Case Report

Severe immune thrombocytopenia in pregnancy: a case report

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ABSTRACT

Pregnancy when complicated with severe immune thrombocytopenia is a challenge both during labour and peripartum period. It's management requires a multidisciplinary care approach. Severity of ITP may have adverse consequences on both maternal and fetal outcome. Present case report is of a patient with findings of chronic thrombocytopenia who came to antenatal outpatient department at 28 years of age with 7 months of amenorrhea with history of bleeding gums and purpura. She was monitored throughout third trimester of pregnancy. Ultrasonography findings showed severe oligohydramnios at 38 weeks and based on obstetric indications, elective cesarean section was planned after consultation with anesthetist and hematologist. Patient landed in intraoperative postpartum hemorrhage and was managed with medical management along with glove balloon tamponade. Patient was discharged on day 10 day along with her newborn. It shows that close monitoring of the clinical course and multidisciplinary care is critical to reach the correct treatment implication as well as potential management of such cases.

Keywords: Immune thrombocytopenia, ITP, Platelet, Pregnancy management

INTRODUCTION

Platelet count less than 1.5 lakh/cumm is called as thrombocytopenia and it is the second most common haematological disorder in pregnancy besides anaemia. It complicates 7 to 10% of all pregnancies.[1] Generally the mean platelet count in pregnant women is lower than in non-pregnant women.[2]

Immune thrombocytopenia (ITP) is an autoimmune disease, characterized by antibody arbitrated platelet destruction and diminished platelet production.[3] The American Society of Hematology defines ITP as isolated thrombocytopenia in the absence of identifiable and specific precipitants. Patients with a history indicative of ITP or whose platelet count is less than 80,000/cumm must be considered for further investigation for probable ITP.[4] A stable platelet count between 20,000/cumm and 30,000/cumm in a non-bleeding patient is safe for most pregnancy and a platelet count ≥50,000/cumm is preferred for delivery of bleeding patient.[5] However, for operative vaginal or caesarean deliveries the safe platelet count should be at least 50,000/cumm.[6]

Several studies have examined pregnancy outcomes for women with ITP and found that most pregnancies had successful outcomes for both mothers and children.[1,2,7-9] But there are ample issues which increase the difficulty of ITP diagnosis and treatment during pregnancy, such as, the decreased platelet counts during normal pregnancy, accelerated platelet clearance, surgical delivery, the suspension of treatment, and immunoglobulin G antiplatelet antibodies transferred to the foetus through the placenta.[9]

CASE REPORT

A twenty-eight-year-old primigravida came to antenatal outpatient department with seven months of amenorrhea with history of bleeding gums and purpura. She was

evaluated and her platelet counts showed significant decrease. Patient was known case of immune thrombocytopenia since eight years of age and had history of treatment with injection prednisolone 1 g/kg with ordered tapering of dosage, to which her platelets count showed marginal improvement. She also had history of menorrhagia with severe anemia with multiple whole blood transfusions. Patient gave history of elective splenectomy five years back. Her symptoms reduced in severity after the surgery and patient stopped medications and follow up visits of her own accord.

She was admitted in high-risk ANC ward and was transfused two random donor platelets. She was monitored for bleeding tendencies and she was given steroids for fetal lung maturity. Hematologist opinion was taken which advised platelet transfusion only after appearance of bleeding tendencies. She was started on injection methylprednisolone 1 g/kg once daily for three days after which she was started on tablet prednisolone for 10 days and tapered accordingly. Patient was monitoring judiciously with biweekly obstetric ultrasonography with Doppler for fetal assessment. Ultrasonography findings showed severe oligohydramnios at 38 weeks and elective cesarean section was planned after consultation with anesthetist and hematologist.

Patient was taken for lower segment cesarean section under general anesthesia. A full-term male child was delivered and cried immediately after birth. She landed into atonic postpartum hemorrhagic and was given injection oxytocin and tablet misoprostol, along with injection methylergometrine. After failure of medical management, intrauterine glove balloon tamponade was done. She was transfused four random donor and one whole blood intra-operatively. Hemostasis was achieved and intra-abdominal and subcutaneous drains were placed. Patient was monitored in obstetric ICU and was extubated after 12 hours. Glove balloon was removed after 24 hours. Her drains were removed on day four. Complete blood counts of her neonate were done which revealed normal platelet counts. Her cesarean stitches were healthy and removed on day 10. She was counselled regarding contraceptive use. Hematologist opinion was taken before discharge and regular follow up was advised. Patient was discharged on day 10 day along with her newborn.

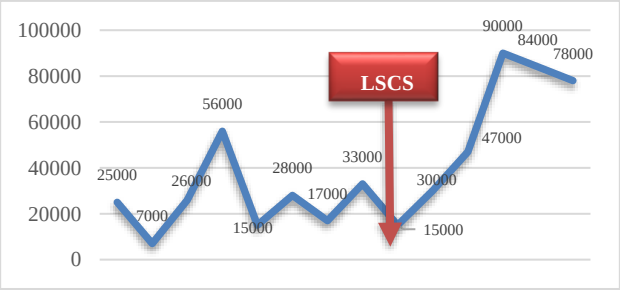

Figure 1: Platelet counts throughout pregnancy (/cumm).

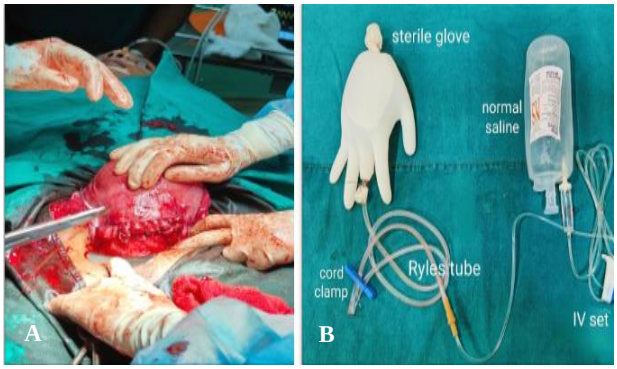

Figure 2 (A and B): Intra-uterine glove balloon tamponade done using sterile glove, Ryles tube and cord clamp.

DISCUSSION

While treating immune thrombocytopenia during the pregnancy, the main aim is to attain a safe platelet count that reduces the risk of maternal bleeding, instead of normalizing the count. Platelet counts should be monitored regularly during pregnancy, with more frequent monitoring if the count drops or is low.[2]

If a patient goes into labour with platelets below 50,000/cumm, platelet transfusions to be administered.[10] Studies show that in a group of women treated for severe thrombocytopenia with platelet count<10,000/cumm during pregnancy, the average gestational age at delivery was 36 weeks.[11] As far as, mode of delivery is concerned there are no data to support the superiority of cesarean section in lowering the risks for the thrombocytopenic fetus as compared to vaginal delivery.

Study conducted by Fakhrolmolouk et al, 2012, on pregnancy outcomes in women with idiopathic thrombocytopenic purpura, revealed that 17 of 20 deliveries (81%) were cesarean sections based on obstetric indications.[12] Similar to such reports, our patient was considered for caesarean due to obstetric indications, and none because of thrombocytopenia.

ITP is related with moderate to severe thrombocytopenia which can cause the risk of maternal haemorrhage as and may result in foetal thrombocytopenia or foetal intracranial haemorrhage. Women who required treatment for ITP have a significantly higher estimated blood loss at delivery. There is a reported increase in the risk of PPH in women with ITP and a platelet count <55000/cumm at the time of birth.[13]

In this case the patient landed into PPH and was initially managed with medical management, with later insertion of intrauterine Glove balloon tamponade for management. It was made using technique described by Tasneem et al.[13] Several trials confirm that severe thrombocytopenia is uncommon in infants born to mothers with ITP.[14] Similar

findings were seen in this case where the newborn had normal platelet counts.

CONCLUSION

Immune thrombocytopenia can cause severe thrombocytopenia which may lead to maternal haemorrhage, foetal thrombocytopenia and foetal intracranial haemorrhage. Peripartum supervision includes maintaining safe platelet counts for delivery. ITP is not a contraindication to vaginal delivery and caesarean section should only be performed based on obstetric indications. Close monitoring of the clinical course and response to treatment is critical to reach the correct diagnosis; which will help in treatment implication as well as potential management of such cases.

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