



Research Article

A CASE OF PREGNANCY WITH CHRONIC ITP MANAGED WITH IVIg: A REPORT

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ABSTRACT

Immune thrombocytopenia (ITP) can be rarely associated with pregnancy. The management of ITP during pregnancy is a contentious issue and is often decided by a multi-disciplinary team. We here present a case of a 20-year-old female presenting with ITP in pregnancy. She was managed initially with oral prednisolone followed by IVIg (1 g/Kg) near term. The platelet counts increased significantly after the single dose of IVIg and she underwent a caesarean section at 37th week uneventfully. Platelet count of the neonate was also normal. Relevant literature on the use of IVIg for this and other indications during pregnancy have also been discussed.

Keywords: Chronic ITP, IVIG, thrombocytopenia, caesarean section

INTRODUCTION

Thrombocytopenia may complicate pregnancies in some cases¹. The causes of thrombocytopenia in pregnancy are manifold, including causes directly related to the gestation (like HELLP syndrome or DIC) or systemic causes like malnutrition or drug effect. Some of these cases have only mild thrombocytopenia with no effect on maternal or fetal outcomes. But some others may have a more aggressive course with significant morbidity and mortality¹. Hence, diagnosis of the aetiology of thrombocytopenia with proper management during pregnancy is vitally important.

Immune thrombocytopenia (ITP) may be associated with pregnancy only rarely. One estimate puts the incidence at around 1–2 per 1000 pregnancies². While on one hand patients with chronic ITP may become pregnant, ITP can also arise de novo during pregnancy. The chances of different complications like maternal bleeding and fetal death are variable and appropriate timely therapy may be needed to improve outcomes³. We here present a case of chronic ITP in pregnancy managed successfully with IVIg.

THE CASE REPORT

A 20-year-old female from West Bengal presented to us with 5 months' pregnancy at the first ante-natal visit. She was a primiparous female. Detailed questioning revealed that she was a diagnosed case of chronic immune thrombocytopenic purpura (ITP) for the last six years. But she had taken treatment only intermittently and before this pregnancy she had discontinued all treatment herself. In the past, she had been treated variably with prednisolone, pulse methyl prednisolone, dapsone and azathioprine. Responses to these treatments were variable in the past with platelet counts varying between 40000-80000/cmm.

The patient had no bleeding manifestations at presentation. But her platelet count was 21000/cmm. Autoimmune markers like ANF and ANCA were negative and serum complement levels were normal. The patient was counselled about the risks of pregnancy and started on oral prednisolone 10 mg/day initially with a plan to increase it gradually. Initially, her platelet count increased significantly with counts of 37000/cmm at 25th week, 52000/cmm at 30th week and 68000/cmm at 34th week. But at 35th week, the patient suddenly had a platelet count of 17000/cmm. There was no bleeding manifestation and fetoplacental profile was normal. The oral prednisolone was increased to 50 mg/day but the platelet count increased only to 20000/cmm at 36th week. In view of the low platelet count before delivery, an urgent intervention was warranted. Since there was past record of inadequate response with pulse methylprednisolone, it was decided (by a multi-disciplinary team) to treat her with IVIg 1 g/Kg. After ruling out any infective focus in the body, she was given an infusion of human immunoglobulin (60 g).

The platelet count increased as follows:

Day after IVIg infusion	Platelet count (per cmm)
1	28000
2	33000
3	42000
4	48000

Fetal monitoring was done during and after the infusion and it was normal. At 37th week, there was sudden rupture of membranes with prolonged labour for which emergency caesarean section had to be done. There was no increased bleeding either in mother or baby during surgery. Post-natally, mother's platelet count was maintained between 50000-70000/cmm. Platelet count of the neonate was normal.

The mother was maintained on oral prednisolone during puerperium. She was subsequently referred to hematology clinic for further follow up.

DISCUSSION

There have been very few trials for ITP management and trials on pregnancy with ITP are even fewer. The 2009 Cochrane review on this topic also acknowledges this shortcoming⁴. Thus, in these cases, management is often based on expert opinion and previous documented cases only. The international guidelines are also not very explicit on this topic of ITP in pregnancy. The 2011 American guidelines just mention “either corticosteroids or IVIg” without specifying anything further⁵. In the UK, the NHS guidelines also mentions the therapeutic options only without specifying a particular pathway⁶. Hence, a multi-disciplinary teamwork and the treating clinician’s decision are paramount in treatment decision making.

Regular monitoring of platelet count is required during pregnancy complicated by ITP¹. However, the optimum platelet count which should be maintained is debatable. British guidelines define severe thrombocytopenia in pregnancy as platelet counts <50000/cmm⁶. But the count at which treatment should be given is again contentious. Generally, in late pregnancy, counts <50000/cmm require some form of therapy⁶.

In our case, since the patient had severe thrombocytopenia near term in spite of getting oral steroids, some form of urgent therapy was needed. Of the available therapies, rituximab was not used as it is slow to act and also, there is a high risk of infections⁷. Of the two available pulse therapies (methylprednisolone and IVIg), IVIg was preferred as it has shown superior efficacy to raise platelet counts in the short term and, it has a better residual effect to maintain the platelet levels⁸. But this and other data are mainly derived from studies on children. Whether the same can be applied to pregnant women is still debatable. Also, use of steroids in pregnancy may be associated with abruptio placentae and/or premature labour¹. However, although the evidence in favour of IVIg is better, it may require multiple doses to achieve the desired platelet level in some cases¹. For countries like India, where the main health spending is out-of-pocket, this may mean a significant financial burden.

ITP in pregnancy is a condition with variable outcome. In a Canadian study, it was found that up to 69% of pregnancies with ITP did not require any therapy and maintained a stable platelet count³. Of the patients who required therapy, IVIg was the most popular choice for therapy³. But response to therapy was again variable with only about 50% of the cases responding significantly. Platelet counts tend to fall as the pregnancy advances. A few cases in the Canadian study had a marked fall in platelet counts at the time of delivery, like our patient. Low platelet count during delivery does not always lead to bleeding. Also, low platelet count only is not an indication for caesarean section.

ITP in mother can sometimes cause thrombocytopenia in neonates³. But there is no correlation between the maternal and neonatal platelet counts³. If the neonate has severe

thrombocytopenia, it may require separate therapy. In our case, the baby had normal platelet count.

IVIg is generally considered safe in pregnancy. There have been no definite trials to assess the effect on pregnant women but available data suggest no significant harm to pregnant women if IVIg is used⁹. In cases like ours, where urgent therapy is needed, IVIg can be used safely. However, proper ante-natal care must be continued during this treatment for good results¹⁰.

CONCLUSION

ITP during pregnancy is usually a benign condition with most patients requiring no definitive therapy. But regular monitoring is needed and IVIg is a safe and effective option for severe thrombocytopenia in these cases.

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