

AN UNUSUAL CONCERN IN PREGNANCY..... IDIOPATHIC THROMBOCYTOPENIC PURPURA – A CASE REPORT

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ABSTRACT:

Idiopathic thrombocytopenic purpura accounts for 3% of thrombocytopenia in pregnancy with an overall incidence of 0.1-1/1000 pregnancies. The greatest concern with this disorder is the risk of postpartum hemorrhage and the chances of neonatal thrombocytopenia. A 29yr old G2P1L1 was admitted at SRMC with 38 weeks for safe confinement. She was a known case of ITP since 6 yrs with a significant past history of menorrhagia and purpuric spots. She was advised prednisolone and azothioprine for the same. She was serially

monitored with platelet count during her course of pregnancy and had an uneventful intrapartum period. She delivered a female baby vaginally without any postnatal complications. The aim of this case report is to focus on the clinical aspects of ITP and the management guidelines of ITP with pregnancy in labour.

Key words : menorrhagia, postpartum hemorrhage, thrombocytopenia

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INTRODUCTION:

Platelet count in pregnancy is normal in most women even though as a consequence of hemodilution in pregnancy, there is a downward drift in the platelet count of upto 10%.^[1,2,3] The causes of thrombocytopenia in pregnancy includes gestational thrombocytopenia, Idiopathic Thrombocytopenic Purpura (ITP), Thrombotic thrombocytopenic purpura, HELLP syndrome (Hemolysis Elevated liver enzymes Low platelets), viral infections, leukaemia, drugs and pseudo-thrombocytopenia. Diagnosis of ITP is mainly by excluding the above causes. ITP is caused by antibodies against platelet surface glycoproteins which result in immune mediated platelet destruction; these antibodies are capable of crossing the placenta and can cause fetal thrombocytopenia.^[4]

CASE REPORT :

A 29yr old Gravid2 Para1 Living1 was admitted at Sri Ramachandra Medical Centre in 2010 with 38 weeks with ITP for safe confinement.

In 2004, she had her first clinical symptoms in the form of menorrhagia and purpuric rashes for 3 months leading to a drop in hemoglobin to 3g%. She was stabilized with 3 units of packed cells as she was severely anemic and thrombocytopenic and was started on continuous combined pills (ethinyl estradiol 35micrograms + levonorgestrel 0.15mg). On evaluation, the patient had a microcytic peripheral smear picture with a platelet count of 17,000; Coomb's test was negative. Idiopathic Thrombocytopenic Purpura was diagnosed after excluding the other causes. She was advised prednisolone 60mg for the same with restoration of the platelet count to normal. She had her marriage in 2005 and conceived spontaneously in the same year.

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In her first pregnancy, in 2005, she was advised prednisolone 30mg at 30 weeks in view of serial fall in the platelet count from 1.68 lakhs/cu.mm. to 35 thousand/cu.mm. The counts gradually improved upto 1.76lakhs at 36weeks; she was induced at 38 weeks in view of declining platelet count (90,000). She had an uncomplicated spontaneous vaginal delivery with episiotomy.

In her second pregnancy in 2010, she was on azothioprine pre-conceptionally. Her platelet count was serially monitored and at 5th month of her gestation, anomaly scan and fetal echo was done which was normal. Even though there is a concern of intracranial hemorrhage with vaginal delivery, Caesarean section is not routinely recommended;^[5] hence the patient was allowed for a spontaneous vaginal delivery with episiotomy with an uneventful third stage. In the postpartum period, she was advised to withhold azothioprine till lactation was established and was changed to prednisolone 30mg.

DISCUSSION :

Differential diagnosis of thrombocytopenia in pregnancy includes gestational thrombocytopenia, Pre-eclampsia, Acute fatty liver of pregnancy, Hemolytic uraemic syndrome, Systemic Lupus Erythematosus, viral infections, Disseminated Intravascular Coagulation, Congenital hypersplenism, bone marrow dysfunction, viral infections and drug-induced causes.

Most women with ITP have normal findings on physical examination (splenomegaly is absent) and purpura may be present especially in the lower limbs.^[6] Although antibodies can be demonstrated in these cases, the tests lack sensitivity and specificity. Majority require no treatment except before delivery. In pregnancy, the first line of management is Prednisolone, starting at 20mg and escalating to 60 mg in 1 week if needed. Second line is Azathioprine / i.v. immunoglobulin/ anti-D immunoglobulin^[7] and the third line is platelet transfusion / splenectomy (in the non pregnant state)

Although there is no universally accepted safe platelet count, the following can be taken as a general guideline for

the intervention as per (Table-1) in pregnancy, so as to have a safe delivery avoiding the risks of post partum hemorrhage.^[8]

Table-1

Safe platelet count as per Royal College of Obstetrics & Gynaecologists^[9]

INTERVENTION	PLATELET COUNT (*10 ⁹ /l)
Antenatal, no invasive procedures planned	>20
Vaginal delivery	>40
Operative or instrumental delivery	>50
Epidural anaesthesia	>80

Prednisolone has been assigned to pregnancy category C by the FDA. Some animal studies have revealed evidence of fetal harm, although data are conflicting. There are no controlled data in human pregnancy. Prednisone is only recommended for use during pregnancy when there are no alternatives and benefit outweighs risk. Azathioprine in pregnancy falls under category C. Although fetus is at risk for cardiac anomalies (atrial/ventricular septal defect), fetal growth restriction and preterm birth, benefits outweigh the risks and hence are used in the management of ITP.

The incidence of neonatal thrombocytopenia is 14-37%^[10] but the neonates are usually without physical findings.^[5] There is no recommendation for routine cordocentesis. In labor, to avoid intracranial hemorrhage, measures should be taken to avoid fetal scalp electrodes and instrumental delivery. A cord sample should be taken to assess the platelet count and repeated on days 1 and 4 of birth. Intramuscular vitamin K is to be avoided until the count is known. Babies with severe thrombocytopenia should be treated with platelets and i.v. immunoglobulins.

Neonatal Alloimmune Thrombocytopenia, which occurs as a result of maternal immunization develops in fetal life, with 25-50% of fetal intracranial haemorrhage detected on prenatal ultrasound. Neonatal morbidity is by far more common in Neonatal Alloimmune Thrombocytopenia, with 10% of affected newborns dying and 20% experiencing neurological sequelae secondary to intra cranial haemorrhage. Affected infants can have generalized petechiae, haemorrhage of abdominal viscera and excessive bleeding following venepuncture or circumcision.

To conclude, even though pregnancy is considered an hyper-coagulable state, there are always exceptions as in this

patient who had a thrombocytopenic picture which was of special concern to us.

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