Abstract:
Thrombocytopenia in pregnancy has many causes, including Gestational Thrombocytopenia, viral and bacterial infections, and preeclampsia complicated by haemolysis, elevated liver enzymes and low platelet (HELLP syndrome). The great concern for Idiopathic Thrombocytopenic Purpura (ITP) during pregnancy is the risk of thrombocytopenia in newborn infants. A 24 year G2P1L1 previous lower Caesarean section presented to us with history of gum bleeding and profuse bleeding per vagina. She was diagnosed of ITP in her previous pregnancy and was treated symptomatically. In her interconception period she was not on any drug. In present pregnancy she was started on steroid and transfused with 42 units of blood components. She delivered a healthy boy baby weighed 2.250 kg by lower segment caesarean section with sterilization.

Her postoperative period was stormy. She was discharged on the 21st post-operative day. The aim of this case report to reveal pregnancy with ITP and its clinical presentation, investigation and management with review of few relevant literatures.

Keyword: Idiopathic Thrombocytopenic Purpura, Pregnancy, Autoimmune disorder, Methyl prednisolone.

INTRODUCTION:
Idiopathic Thrombocytopenic Purpura (ITP) in pregnancy is one the diagnosis of exclusion. It is one of the most common autoimmune disorders. Thrombocytopenia can result from a wide range of conditions with several of them being pregnancy related. It is characterised by production of antiplatelet antibodies that binds to the antigen on the platelet surface resulting in their destruction. These antibodies cross the placenta to cause
potential fetal or neonatal thrombocytopenia and haemorrhage\textsuperscript{1,2}. This article focuses on the idiopathic thrombocytopenic purpura and neonatal alloimmune thrombocytopenia and its management during pregnancy, labour and puerperium.

**CASE REPORT:**
A 24 yr old G\textsubscript{2}P\textsubscript{1}L\textsubscript{1} previous lower segment caesarean section of 8 months amenorrhoa presented with history of bleeding per vagina for the past one hour. Her last menstrual period -15/06/2009 and expected date of delivery-22/03/2010.She was booked and immunised at Sri Ramallur Vivekananda health post. She had regular antenatal visits, with no significant complications of Idiopathic Thrombocytopenic Purpura and referred to our hospital for further evaluation and management on 17/02/2010.

She had regular menstrual cycles of 3 to 5 days duration with moderate flow. She is married since 4 years out of a non-consanguinous marriage. There is no similar family history in the past.

Regarding her previous obstetric history, the 1st, 2nd and 3rd trimester was uneventful. An emergency lower segment caesarean section was done at a private hospital, the indication being, primigravida breech in labour with fetal distress. She delivered an alive boy baby of 2.5 kg and immediate post operative period patient had bleeding from the wound site, for which she was evaluated and diagnosed as Idiopathic Thrombocytopenic Purpura. Two units of Blood components were given. The baby had no complications. She was discharged on 10th post-operative day.

In her inter-conception period, she had no follow up. There was no history of any medical treatment and she was asymptomatic throughout.

In present pregnancy, 1st and 2nd trimester was uneventful. In her 3rd trimester, she presented with history of bleeding per vagina and bleeding gums a week back. On General Physical Examination, she was moderately anaemic with generalised purpuric rashes, bleeding gums and there was no icterus and lymphadenopathy. Her vital parameters were well within normal limits. Her cardiovascular, respiratory and central nervous systems were apparently normal on clinical examination. Her abdominal examination revealed a uterus corresponding to 32 weeks of gestation with a suprapubic transverse incision. There was no suprapubic tenderness or suprapubic bulge. There was no other apparent organomegaly (no hepatosplenomegaly).

On local examination, there was no active bleeding.

**LABORATORY PARAMETERS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemoglobin</td>
<td>7.4 gm% 2.44 million/mm\textsuperscript{3}</td>
</tr>
<tr>
<td>Red Blood Cell Count</td>
<td>4900 cells/mm\textsuperscript{3}</td>
</tr>
<tr>
<td>Packed Cell Volume %</td>
<td>24%</td>
</tr>
<tr>
<td>Bleeding Time</td>
<td>2 minutes</td>
</tr>
<tr>
<td>Clotting Time</td>
<td>6 minutes 60000/mm\textsuperscript{3}</td>
</tr>
<tr>
<td>Platelet Count</td>
<td>60,000/mm\textsuperscript{3}</td>
</tr>
<tr>
<td>Prothrombin Time</td>
<td>14 seconds</td>
</tr>
<tr>
<td>Activated Partial Thromboplastin Time</td>
<td>20 seconds</td>
</tr>
<tr>
<td>International Normalised Ratio</td>
<td>1.09</td>
</tr>
</tbody>
</table>

She was transfused 7 units of blood components and Haematologist opinion was obtained who asked to monitor bleeding time and clotting time daily, with platelet count on alternate days, weekly PT, APTT and INR. She was given injection Dexamethasone 8 mg intravenous twice daily. On day 9 of admission, patient went into spontaneous labour with profuse bleeding per vagina, for which an emergency repeat caesarean section was done with sterilization after transfusing blood components. She delivered an alive boy baby, weighing 2.250 kg with APGAR of 5/10;7/10. The baby was evaluated for neonatal alloimmune thrombocytopenia and no complications were found.

A peritoneal drain was kept. Since there was oozing present at the subcutaneous site, a tight bandage was applied.

During her post operative period, 100 to 300 ml of altered blood was drained in day 1 to day 5, for which blood components were transfused accordingly. Injection Dexamethasone, Hydrocortisone, Calcium gluconate was given. On day 8, her drain was removed and her laboratory parameters were within normal limits. On day 10 of her post operative period, sutures were removed.

42 UNITS of blood components were transfused with FRESH FROZEN PLASMA- 20 UNITS, PLATELETS-18 UNITS, WHOLE BLOOD-2 UNITS, and CRYO PRECIPITATE-2 UNITS

DISCUSSION:

ITP is also known as autoimmune thrombocytopenic purpura (ATP). ITP is diagnosed more commonly in females than males (ratio 3:1)3,4,5,7, especially in women of child bearing age (2nd and 3rd decade of life) with an incidence of 1 in 1000 pregnancies8,9. These patients produce antiplatelet antibodies (IgG) that recognize membrane glycoprotein and coat the platelets, which are then destroyed by the reticuloendothelial system. The antibodies cross the placenta to cause neonatal thrombocytopenia10. Pregnant women with ITP can be asymptomatic or may present with a history of easy bruisability, bleeding into the mucous membranes (epistaxis or gingival bleeding). They may have a history of menorrhagia or menometrorrhagia prior to pregnancy5,6, history of delivering a term newborn with thrombocytopenia, visceral or intracranial haemorrhage10, or spontaneous or prolonged bleeding after venipuncture. Most women with ITP have normal findings on physical examination (splenomegaly is absent) and purpura may be present in the lower limb5,8. Newborns have normal findings on physical examinations, no cephalohematoma, over the presenting part, and no
purpura. ITP is a diagnosis of exclusion with persistent thrombocytopenia ( < 100,000) and normal or increased megakaryocytes in the bone marrow, red and white cell count is normal. 80% of cases are associated with antiplatelet antibodies. A negative test does not exclude the diagnosis. The main line of therapy is corticosteroids, chiefly methyl prednisolone, along with replacement of blood components accordingly. However intravenous immunoglobulin and splenectomy are also recommended by few.

CONCLUSION:
Idiopathic thrombocytopenic purpura is one of the unusual disorders of pregnancy. Though rare, it should still be considered in differential diagnosis of any bleeding disorder in pregnancy and further evaluation is mandatory to prevent neonatal alloimmune thrombocytopenic purpura.

REFERENCES:
8 Lynnae millar, MD; Immune Thrombocytopenia and Pregnancy, Last Updated: June 29, 2006.