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Case Report

Chronic Idiopathic Thrombocytopenic Purpura during the Pregnancy: A Case Report

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ABSTRACT

A 37-year-old woman was admitted to the hospital after complaining of a petechiae rash all over her body for three days, generalized weakness, pallor, and gum bleeding in one episode, and a history of similar episodes in the past. The patient has Idiopathic Thrombocytopenic Purpura and has been on medication throughout her pregnancy. Peripheral examination reveals microcytic hypochromic anemia with thrombocytopenia, and bone marrow examination reveals an increase in the number of megakaryocytes. She received corticosteroid and antifibrinolytic treatment. Her symptoms are similar to those caused by steroids after being readmitted to the hospital. Idiopathic Thrombocytopenic Purpura appears to be an immune-mediated disease. Although Idiopathic Thrombocytopenic Purpura is a rare condition, it can be fatal, especially during pregnancy because of fetal intracranial hemorrhage.

Key words: Idiopathic Thrombocytopenia, Petechiae, Pregnancy, Megakaryocytes, Antifibrinolytic.

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INTRODUCTION

The term Idiopathic Thrombocytopenic Purpura, also known as Immune thrombocytopenia purpura, refers to an unknown origin or Thrombocytopenic state characterized by decreased numbers of circulating platelets, normal or increased numbers of megakaryocytic in the bone marrow. It is divided into 2 forms those are Acute and Chronic. The Acute form most commonly occurs in 2-7years of age although it is also present in adults but it has no preference for gender and it resolves within 6 months while, Chronic form occurs more often in females between 20-40 years of age with females to male ratio of 3:1. It is more persistent disease, lasting for more than 6 months, has an insidious onset and incidence is unknown. Idiopathic Thrombocytopenic Purpura appears to be immunologically mediated.[1-4] An anti-platelet IgG antibody reacts with host Platelets, causing rapid destruction by the Reticuloendothelial system.

They are two main reasons and they are:

1. The demonstration of increased level of Platelet associated IgG antibodies in more than 90% of patient with Idiopathic Thrombocytopenic Purpura.
2. Some studies show normal individuals Developed thrombocytopenia when injected with plasma from patients with Idiopathic Thrombocytopenic Purpura.[5,6]

CASE REPORT

A 37 years female patient admitted in hospital with chief complaints of petechiae rash all over the body for 3 days, generalized weakness, pallor and gums bleeding one episode. She is a known case of Idiopathic Thrombocytopenic Purpura in past 20 years in pregnancy condition.

Past Medical and Medication History

On the day of admission patient complained bloody vomiting, loss of appetite, black pigmented spots all over the body, unable to speak in the last 2 days and headache, drowsy, bleeding in gums, altered sensorium, passing urine in cloths. Doctor prescribed different medications which includes Inj. Solumedrol (Methylprednisolone sodium succinate) 500mg; Tab. Wysolone (Prednisolone) 30mg; Tab. Dapsone 100mg; Tab. Eptoine (Phenytoin) 100mg; Tab. Razo D (Rabeprazole + Domperidone) 20+30mg; Cap. Carbox-ZF (Carbonyl Iron + Folic acid + Zinc + Selenium + Vitamin C+E+B12); Tab. Caltran CT (Calcitriol + Calcium carbonate + Zinc).

Patient is sensitive to steroids and have developed steroid induced relapse of internal gums bleed on 3rd day of admission then usage of steroid is discontinued. After 1 month patient was admitted to hospital with complaints of Subdural hematoma in left parieto occipital blood, with rash all over the body, bleeding from gum for 3 days altered sensorium in the last 2 days, similar complaints 3times in past and complete blood picture was advised (Table 1). Rechallenge of steroid has been done along with other drugs like Inj. Tranexa (Tranexamic acid) 500mg; Inj. Raciper (Esomeprazole sodium + Sodium chloride) 40mg; Tab. Eptoin (Phenytoin) 100mg; T. Tranexa (Tranexamic) 500mg; T. Prednisolone 20mg; T. Primolet (Norethisterone) 4mg have been Prescribed.

PERIPHERAL BLOOD SMEAR

- Microcytic hypochromic anaemia with thrombocytopenia

BONE MARROW

- Increased the megakaryocytes number

Serum LDH: 320IU/L (100-200U/L)

BLOOD TRANSFUSION WAS DONE

DISCUSSION

Idiopathic Thrombocytopenic Purpura is one of the rare diseases. The incidence of the disease is more in females when compared to

Table 1: Biochemistry.

Parameters	Abnormal Values	Normal Values
Hemoglobin	7.4 g/dl	11-14
RBC	4.19 million cells/cumm	3.8-5.8 million cells/cumm
WBC	6000 thousand cells/ul	4-11 thousand cells/ul
Platelets	19,000 lakh cells/cumm	1-4 lakh cells/cumm
PCV	25.8%	35-47%
MCV	61.5 Fl	80-96Fl
MCH	17.7 g/L	27-32g/L
MCHC	28.8%	30-38%
RDW	20%	11.5-15%
PT	13.8 sec	11.5-13.5 sec
INR	1.15 sec	1-1.3 sec
APTT	23.4sec	26-37 sec
Fibrinogen	252.6 mg/dl	465mg/dl

males. The most common cause of the disease is unkown. Idiopathic Thrombocytopenic Purpura may be symptomatic or asymptomatic. The standard treatment given to the patient is corticosteroids, intravenous immunoglobulins (IVIG) and Anti-D immune globulin the patients who having the Rh-positive blood group.[7-9] In this condition patient have the Microcytic hypochromic anemia with thrombocytopenia, increased the megakaryocytes number, elevation of prothrombin time and reduction of the haemoglobin, platelets, packed cell volume, mean corpuscular haemoglobin, mean corpuscular volume, mean corpuscular haemoglobin concentration.[10]

Idiopathic Thrombocytopenic Purpura is the most common cause of thrombocytopenia in pregnancy and most cases are benign with counts generally above 100×10^9/L.[11] General pathology of Idiopathic Thrombocytopenic Purpura is, Lymphocytes produce anti-platelet antibodies directed at platelet surface glycoproteins, where platelets are taken up and internally degraded by antigen presenting cells (APCs) and these present platelet antigen in association with major histocompatibility complex (MHC) class II to T helper cells, which become activated and secrete the Th1 cytokines interleukin-2 and IFN-g.[12-15] These Th1 cytokines activate and drive auto reactive B cells to differentiate into autoantibody producing cells. The IgG coated platelets are cleared by splenic macrophages, which results in thrombocytopenia. The course of I Idiopathic Thrombocytopenic Purpura is affected by pregnancy (relapse during pregnancy after remission worse if active).[16] Placental transfer of the IgG platelet antibodies can result in fetal or neonatal thrombocytopenia. Other causes include, disseminated intravascular coagulation, acute fatty liver, viral infections, drug induced, primary bone marrow disorder.[17]

CONCLUSION

In this case report, patient is a known case of Idiopathic Thrombocytopenic Purpura of past 20 years in pregnancy condition and her baby also developed the Idiopathic Thrombocytopenic Purpura. In pregnancy condition the disease prognosis and diagnosis are low to the patient and in some patients the condition cannot treat easily due to that the baby also can reduce the platelet count and they can develop the Idiopathic Thrombocytopenic Purpura. While avoiding this condition the gynecologist have to look over to the pregnant patient to treat the condition or by terminating the pregnancy. Thrombocytopenia exacerbates the 10% of pregnancies. However other causes increase the risk for both maternal and fetal. Gestational Thrombocytopenia or Idiopathic Thrombocytopenic Purpura is mild and requires complete recovery after delivery. Peripartum management involves optimizing platelet counts for delivery and procedures such as epidural analgesia. Treatment should be instituted if the platelet counts are low, or if the infant is symptomatic.[18]

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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