

THROMBOCYTOPENIA DURING PREGNANCYMamatha S¹**HOW TO CITE THIS ARTICLE:**

Mamatha S. "Thrombocytopenia during Pregnancy". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 57, October 30; Page: 12956-12960, DOI:10.14260/jemds/2014/3719

ABSTRACT: Thrombocytopenia occurs in pregnancy. Causes of thrombocytopenia are many. Most common due to Gestational Thrombocytopenia. **MATERIALS AND METHODS:** Retrospective case study of all pregnant patients with low platelet count was undertaken. **DURATION:** August 2013 till August 2014. **OBJECTIVES:** To study the incidence of thrombocytopenia during pregnancy, age of mothers at detection of low platelet count, gestational age at presentation. Platelet count at admission, delivery and postpartum. **RESULTS:** In our study thrombocytopenia during pregnancy was most commonly due to Gestational Thrombocytopenia appearing during last trimester of pregnancy. Gestational Thrombocytopenia had an uneventful course with improvement of platelet count during postpartum.

KEYWORDS: Thrombocytopenia, pregnancy, gestational thrombocytopenia.

INTRODUCTION: Gestational thrombocytopenia (GT) is a recently described clinical entity¹ which is characterized by the incidental detection of a mild to moderate reduction of platelet count during pregnancy in otherwise healthy women with no previous history of autoimmune thrombocytopenia and no conditions known to be associated with thrombocytopenia.

GTP is the most common cause of thrombocytopenia in pregnant women, accounting for approximately 75% of all cases.^{2,12}

There is physiologic decrease in platelet count due to hemodilution, reduced production or increased platelet turn over during mid-second or third trimester of pregnancy.³

Some of them have mild thrombocytopenia that is less than $10 \times 10^9/L$. As there is no diagnostic test, Gestational Thrombocytopenia is a disorder of exclusion.⁴

Gestational Thrombocytopenia usually does not respond to steroid therapy but recover postpartum. Patients with a history of primary or secondary immune thrombocytopenia (ITP), thrombocytopenia of any etiology preceding pregnancy, or any reason for thrombocytopenia other than uncomplicated pregnancy itself like Preeclampsia/eclampsia, acute fatty liver of pregnancy are generally not considered to have gestational thrombocytopenia.

Maternal and fetal outcomes are good with GT.⁵

Gestational thrombocytopenia is self-limited and resolves within 1 to 2 months after delivery.

MATERIALS AND METHODS: A retrospective study of all pregnant ladies with platelet count less than $10 \times 10^9/L$ was done between august 2013 till august 2014. Details of patient's age, gestational age, platelet count at admission, at delivery and post-partum was recorded.

INCIDENCE: Out of 30 patients, 10 had preeclampsia, 4 had HELLP, 2 diagnosed with acute fatty liver of pregnancy. 14 were suffering from gestational thrombocytopenia.

ORIGINAL ARTICLE

No. of cases=30	Diagnosis
10	Preeclampsia
04	HELLP
02	Acute fatty liver of pregnancy
14	Gestational thrombocytopenia.

TABLE 1: INCIDENCE

AGE OF PATIENTS:

AGE OF PATIENTS AT DIAGNOSIS	NO. OF PATIENTS
20-24	8
25-30	12
31-34	10

TABLE 2: AGE WISE DISTRIBUTION OF PATIENTS

GESTATIONAL AGE AT ADMISSION:

GESTATIONAL AGE	NO. OF PATIENTS
UPTO 12 WEEKS	-
13-28 WEEKS	12
29-40 WEEKS	18

TABLE 3: GESTATIONAL AGE AT ADMISSION

PLATELET COUNT AT ADMISSION:

PLATELET COUNT	NO. OF PATIENTS
<100X10 ⁹ /L	20
<70X10 ⁹ /L	6
<40X10 ⁹ /L	4

TABLE 4: PLATELET COUNT AT ADMISSION

PLATELET COUNT AT DELIVERY:

ORIGINAL ARTICLE

PLATELET COUNT	NO. OF PATIENTS
<100X10 ⁹ /L	2
<70X10 ⁹ /L	18
<40X10 ⁹ /L	10

TABLE 5: PLATELET COUNT AT DELIVERY

PLATELET COUNT AT POST PARTUM:

PLATELET COUNT	NO. OF PATIENTS
<100X10 ⁹ /L	04
<70X10 ⁹ /L	22
<40X10 ⁹ /L	04

TABLE6: PLATELET COUNT AT POST PARTUM

RESULTS: In our study incidence of gestational thrombocytopenia were 14 out of 30 patients amounting to 46% incidence.

12 patients out of 30 that are 40% of patients were in age group between 25-30 years.

About 60% of the patients presented in third trimester, closely followed by 40% in second trimester.

Majority of the patients had at admission platelet count less than 100x10⁹/L that is 66%, 20% had less than 70x10⁹/L. very few had platelet count of less than 40x10⁹/L.

Platelet count at delivery had fallen to less than 70x10⁹/L in 60% of patients as compared to 20% at admission.

Post-partum period platelet count showed improvement as I compared to platelet count at delivery 73% of patients had count less than 70x10⁹/L while 13% of patients had platelet count less than 40x10⁹/L.

DISCUSSION: Thrombocytopenia during pregnancy can occur due to varied etiology. Most common being Gestational Thrombocytopenia.

Gestational Thrombocytopenia is a clinical condition that occurs most commonly during late pregnancy and has a benign course. Self-limiting disorder of exclusion. Often maternal and fetal outcomes are good^{6,8} if symptomatically managed with platelet transfusion.

In our study one of the patients required MICU care, rest all were observed in high dependency unit.

Monitored of bleeding symptoms. All were given beneficial steroid therapy for platelet count improvement. 8 patients underwent LSCS for fetal distress. Platelet count was kept above 70x10⁹/L in such patients. Rest all patients had vaginal delivery. 6 patients required packed cell transfusion to correct associated anemia and control PPH.

At discharge all patients had platelet count up to 100x10⁹/L.

ORIGINAL ARTICLE

There was single incidence of neonatal thrombocytopenia. Rest all neonates had normal platelet count at birth.⁷

Possibility of Immune Thrombocytopenia due to auto immune disorders should always be enquired in past history preceding to pregnancy^{9,10,11}

In conclusion, thrombocytopenia in pregnancy due to gestational thrombocytopenia runs a benign course. Requires observation and monitoring for bleeding symptoms. Responds to platelet transfusions. GT has no deleterious effects on maternal and fetal outcome. Require follow up to study any possibility of recurrence in subsequent pregnancy.

BIBLIOGRAPHY:

1. Burrows RF, Kelton JG. Incidentally detected thrombocytopenia in healthy mothers and their infants. *N Engl J Med* 1988; 319:142-5.
2. Mc Crae KR. Thrombocytopenia in Pregnancy. In: Michelson AD, ed. *Platelets*. New York, NY: Elsevier; 2006: 925-933.
3. Provan D, Stasi R, Newland AC, et al. International consensus report on the investigation and management of primary immune thrombocytopenia. *Blood*. 2010; 115: 168 -186.
4. Shehata N, Burrows RF, Kelton JG. Gestational thrombocytopenia. *Clin Obstet Gynecol*. 1999; 42: 327-334.
5. Aster RH. Gestational thrombocytopenia. A plea for conservative management. *N Engl J Med* 1990; 323:264-6.
6. Burrows RF, Kelton JG. Thrombocytopenia at delivery: a prospective survey of 6715 deliveries. *Am J Obstet Gynecol* 1990; 162:731-4.
7. Burrows RF, Kelton JC. Fetal thrombocytopenia and its relation to maternal thrombocytopenia. *N Engl J Med* 1993; 329:1463-6.
8. Burrows RF, Kelton JG. Incidentally detected thrombocytopenia in healthy mothers and their infants. *N Engl J Med*. 1988; 319: 142-145.
9. Gill KK, Kelton JG. Management of idiopathic thrombocytopenic purpura in pregnancy. *Semin Hematol*. 2000; 37: 275-283.
10. Stavrou E, McCrae KR. Immune thrombocytopenia in pregnancy. *Hematol Oncol Clin North Am*. 2009; 23:1299 -1316.
11. Kasai J (1), Aoki S, Kamiya N, Clinical features of gestational thrombocytopenia difficult to differentiate from immune thrombocytopenia diagnosed during pregnancy, *J Obstet Gynaecol Res*. 2014 Aug 28.
12. Ajibola SO (1), Akinbami A (2), Gestational thrombocytopenia among pregnant women in Lagos, Nigeria. *Niger Med J*. 2014 Mar; 55 (2): 139-43.

ORIGINAL ARTICLE

AUTHORS:

1. Mamatha S.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Obstetrics and Gynaecology, M. S. Ramaiah Medical College, Bangalore.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Mamatha S,
No. 1019, Triveni Road,
Mathikere Post,
Bangalore- 560054.
Email: mamtas6@gmail.com

Date of Submission: 15/10/2014.
Date of Peer Review: 16/10/2014.
Date of Acceptance: 27/10/2014.
Date of Publishing: 29/10/2014.