



Prospective Study of Common Infective Causes of Fever With Thrombocytopenia, Clinical Manifestations and Complications

KEYWORDS

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INTRODUCTION

Fever is such a common manifestation of infectious illness that it is not surprising to find accurate descriptions of the febrile patients in early-recorded history. Thrombocytopenia is defined as platelet count $<150,000/l$. Out of many causes of fever with thrombocytopenia, infections are the important cause of thrombocytopenia. The list of infectious agents causing fever with thrombocytopenia are increasing day by day, presenting seasonally, leading to increased number of patients being affected with various bleeding manifestations and sometimes lethal bleeds. Infections like dengue, leptospirosis, malaria, typhoid, miliary TB, HIV, septicemia are some of the common causes of fever with thrombocytopenia. A well organized systematic approach that is carried out with an awareness of causes of fever with thrombocytopenia narrows the differential diagnosis of the clinical entity and brings out diagnosis. The availability of rapid diagnostic tests and specific and symptomatic treatment reduces the morbidity and mortality. Hence, a need for study to know the various manifestations, complications and causes of thrombocytopenia of infective etiology.

AIMS AND OBJECTIVES OF THE STUDY

1. To find out the common infective causes of fever with thrombocytopenia, clinical manifestations and complications.
2. To correlate etiology, clinical manifestations, complications and

Investigations.

PATIENTS AND METHODS

1. TYPE OF STUDY : prospective study over 100 patients with fever and thrombocytopenia of infective etiology
 2. Duration of study : This study was done on patients who were admitted to Department of medicine, Gandhi hospital, secunderabad during a period of two years from September 2012 to September 2014.

INCLUSION CRITERIA:

All the adult patients with fever and thrombocytopenia of infective etiology.

EXCLUSION CRITERIA:

Patients with fever with thrombocytopenia other than infective etiology were excluded.

OBSERVATION AND RESULTS

A prospective study of 100 patients, who had fever and thrombocytopenia, was done in Gandhi hospital. The inclusion and exclusion criteria were followed according to the criteria's mentioned in the patients and methods of the study.

2. The age range of the patient was 17- 66 years, with male and female ratio being 1.3:1
3. Diagnosis was dengue fever (50 cases), Malaria (17), Enteric fever(15), HIV (7), Hepatitis B (4 cases), Sepsis(4), Leptospirosis (3 cases) .
4. Common range of platelet count at the time of admission was 25000-50000 in 43 cases, followed by 50-75 thousands in 24 cases, < 25 thousands in 19 cases, 75-100 thousands in 6 cases and 1 - 1.5 lakhs in 6 cases.
5. Bleeding manifestation of thrombocytopenia was present only in 42 cases and in 58 cases it was not present.
6. 100% of patients of very severe thrombocytopenia and 49% patients with severe thrombocytopenia manifested with bleeding diathesis.
7. Among patient with very severe thrombocytopenia (19 patients) all of them manifested with petechiae, upper gastrointestinal bleed and 21% of them manifested with subconjunctival hemorrhage and bleeding per vaginum. Bleeding gums and hematuria is seen in 10.5% patients. Intracerebral bleed is seen in 5.2% of the cases with very severe thrombocytopenia
8. Petechiae and upper GI bleed are the common bleeding manifestation.
9. In the present study, 96 cases had recovered totally and there was mortality in 4 cases. In 96 cases who recovered, were followed up till discharge and platelet count was near normal at the time of discharge.
10. In mortality group of 4 cases, 3 were due to sepsis and 1 was due to HIV infection. Common range of platelet count in mortality group was 10-20 thousands.
11. In the present study there were no bleeding manifestations in 58% cases hence in all cases there may not be bleeding manifestations. Therefore cases of thrombocytopenia should be subjected for laboratory tests like widal, smear for MP, HIV ELISA, leptospiral antibodies etc apart from IgM ELISA for dengue for correct diagnosis and monitored regularly for platelet count and treated accordingly to prevent deaths.

CONCLUSION

In conclusion present study of fever with thrombocytopenia reveals that among infectious diseases the commonest cause was Dengue, which is of higher incidence

because of seasonal, regional and ethnical variations. Definitive increase in platelet count was noted after the underlying cause was treated. Among other infections, malaria, enteric fever, leptospirosis and other viral infections formed the major cause of thrombocytopenia in this group.

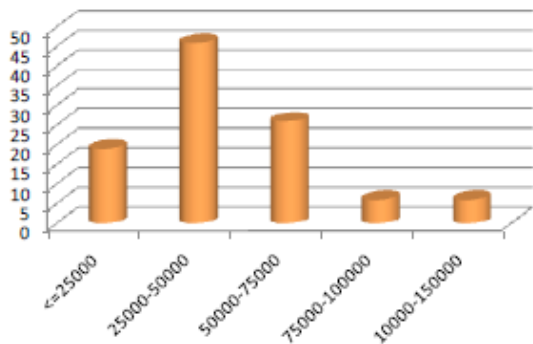


Figure 1 platelet count

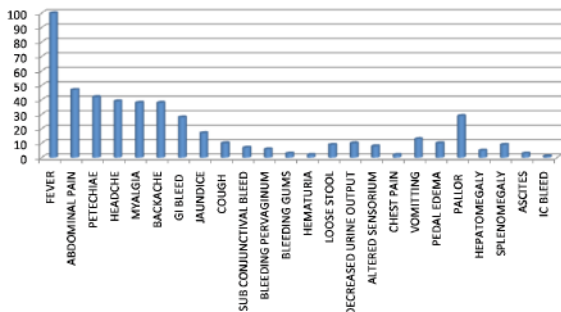


Figure 2 clinical manifestations

| ETIOLOGY | NUMBER OF PATIENTS | % |
|---------------|--------------------|----|
| DENGUE FEVER | 50 | 50 |
| MALARIA | 17 | 17 |
| ENTERIC FEVER | 15 | 15 |
| HIV | 7 | 7 |
| HBS AG | 4 | 4 |
| SEPSIS | 4 | 4 |
| LEPTOSPIROSIS | 3 | 3 |

Figure 3 various etiology

REFERENCES

- Woodward T.E. "The Fever Pattern as a Diagnostic Aid : In Fever : basic mechanisms and management". (ed. Mackowiack P.A), New York, Lippincott -Raven Publishers, Philadelphia, 1997: pp215-235.
- George JN, Aizvi MA. Thrombocytopenia. Chapter-117, In: Williams haematology, 6th Ed, Edt. Ernest Beufler et al, USA : McGraw Hill, 2001 pp1501.
- Handian RI. Bleeding and thrombosis. Chapter 62, In: Harrison principles of internal medicine, 15th Ed. Vol.1, Edt. Braunwald et al, USA : McGraw Hill, 2001. pp358.
- Shirley Parker Levine .Wintrobe' s Clinical Haematology 10 th edition 2 nd volume. 1993 : 1579-1632. Robert.W.Colman, Jack Hirsch, Victor J Marder, Edwin W Salzman . Hemostasis and Thrombosis- Basic principles and clinical practice. 1982 : 246-47.
- William-j-william. Eaeinst beutler ,Allan j erslev, marshal a litchman .Hematology 3 rd ed: 1290-1342.
- Frank firkin .degruchy s clinical haematology in medical practice. 1990 5 th edn : 375.
- Slichter S, Harker L. Thrombocytopenia: mechanisms and management of defects in platelet production. Clin Haematol. 1978 Oct;7(3): 523 -39