JOURNAL Of Medical Science And Clinical Research

IGM Publication — An Official Publication Of IGM Publication

Study of Clinical Profile of Acute Febrile illness with Thrombocytopenia

Authors
Dr Manoj Kumar Choudhary[1], Dr K.K.Lohani[2], Dr N.K.Paswan[3]
[1,3]Assistant Professor, Medicine, Anugrah Narayan Magadh Medical College, Gaya
[2]Associat Professor, Medicine, Anugrah Narayan Magadh Medical College, Gaya

ABSTRACT
Introduction- *Febrile thrombocytopenia is usually a condition commonly caused by infection like Malaria, Dengue fever, Enteric fever and Septicemia. It is one of the commonest presenting problems in Hospital. It is necessary to know the cause, which will be useful to give proper treatment to patient.*
Aims and Objective- *To study the aetiology and clinical profile of fever with thrombocytopenia.*
Material and Method- *The study was conducted on 100 patients who presented with fever, with thrombocytopenia and were admitted in Anugrah Narayan Magadh Medical college, Gaya from November 2015 to April 2017.*
Result- *Fever with thrombocytopenia affected all age group but was common in 21-40 years of age group (43%). Fever was common clinical feature and 69% patients were having platelet count>50,000/mm³. Malaria was the commonest cause (30%) as compared to Dengue fever (23%).*
Conclusion- *Out come depends on the underlying cause of fever, early diagnosis and early treatment.*
Keywords- *Fever, thrombocytopenia, Malaria Dengue fever.*

Introduction

Fever is one of the common presentations; it is a manifestation of various infection as well as non infective disease process. Acute febrile illnesses that present with thrombocytopenia are common in individual living in Tropical area of Asia [1]. Disease which commonly present with acute febrile thrombocytopenia includes Dengue fever, Malaria, Septicemia, Leptospirosis, Rickettsial infection, Typhoid fever, Brucelosis, Visceral leishmaniasis and TTP-HUS[2]. Dengue and Malaria, the most common arthropod borne disease, are major concern in tropical setting responsible for thrombocytopenia. Their early diagnosis and specific management is of our most importance and may reduce morbidity and mortality. Thrombocytopenia defined as platelet count less than 1,50,000/uL in blood [3].

Material and Method

This prospective study was carried out in patient of fever with thrombocytopenia who were admitted in Medicine ward of Anugarha Narayan Magadh Medical College and Hospital Gaya for a period from November2015 to April 2017. To study clinical and Laboratory profile with febrile thrombocytopenia. To find correlation between Degree of thrombocytopenia and bleeding manifestation. To study outcome of patient having fever with thrombocytopenia.
Inclusion criteria- The patient age more than 15 years admitted with fever with thrombocytopenia.

Exclusion criteria- Patient used below 15 years. Patient with fever but not associated with thrombocytopenia. Patient with thrombocytopenia but having no fever.

Result

A total of 100 patient admitted over a period of one year and six months in this Hospital were studied. Among the total 100 cases 80 were male and 20 were female. Commonest age group affected in most of this infection was 21-40 years. In this study, (30%)cases were positive for malaria, 23% cases were positive for Dengue, Septicemia (19%) cases, Enteric fever (13%), PUO (7%), Alcoholic liver disease(5%), Viral fever other than Dengue fever(3%) and 1% cases were undiagnosed.

Table 1. Age distribution

Age in year	Male	Female	Total
<20	22	7	29
21-40	35	8	43
41-60	15	3	18
>60	8	2	10
	80	20	100

Table 2. Clinical feature in patients with febrile thrombocytopenia

Sign and Symptom	No of cases
Fever	100 (100%)
Headache	72 (72%)
Vomiting	64 (64%)
Abdominal pain	50 (50%)
Splenomegally	34 (34%)
Anemia	32 (32%)
Hepatomegly	29 (29%)
Joint pain	22 (22%)
Petechial rash	20 (20%)
Hypotension	6 (6%)
Altered sensorium	30 (30%)
GI Bleeding	2 (2%)

Common sign and symptom in this study was fever(100%), headache(72%), vomiting(64%), abdominal pain(50%), Splenomegaly(34%) , Anemia (32%), Hepatomegaly(29%),joint pain (22%), Alterted Senosorium(3%) and Gestrointestinal bleeding(2%). Platelet count was>50,000/mm^3>69 number of cases. Were as 22 case had platelet count between 2000-50,000/mm^3 and 9 cases had 20,000/mm^3.

Discussion

A well organized systemic approach for fever with thrombocytopenia can help to diagnose the case early which will reduced the morbidity and mortality and cost associated with it.

In our study, male population (80%) were more affected then female (20%). The most common age group affected in our study was21-40 years of age. Male were commonly suffering from fever, this may be due to their easy exposure to mosquito because of their outdoor activities. Our finding of occurrence of fever with thrombocytopenia more in male than female is similar to study done by Bhalara SK Shah et al [4] in 2015. In our study Malaria was commonest infection seen in (30%) cases of fever with thrombocytopenia and other causes of fever with thrombocytopenia were Dengue (23%),Septicemia(19%), Enteric fever (13%), Pyrexia of unknown origin(PUO)(7%), Alcoholic liver disease (7%). Viral fever other than Dengue fever (3%) and one case which was undiagnosed. Gandhi A etal (2015) [5] found that Malaria(42%) was the most common cause followed by Dengue(26%)., Undifferentiated fever (17%), Enteric fever(4.46%) and Septicemia (4.5%), where as Raikars (2013) [6] found that Dengue (52%) was common cause of thrombocytopenia than Malaria(42%) and Enteric fever (3%). Most common sign and symptom among patient included in our study was fever (100%), headache (72%), vomiting(64%), Abdominal pain(50%), Splenomegaly (34%),Anemia(32%), Hepatomegaly (29%), Joint pain(22%), Petichal rash(20%), Hypotention(6%), Altered sensorium(3%), GI Bleeding(2%).

In our study 9 patient had platelet count< 20,000/mm^3, followed by 22 patients had platelet count<21,000-50,000/mm^3 and 69 patients had platelet count > 50,000/mm^3. In our study distribution of platelet count in the range of more than 50,000/mm^3 was seen in (69%) cases as compared to 62(56.8%) in study by Nair et al [7]. Duration of illness and stay in hospital both were higher in Malaria patient as compared to Dengue patient. Out of the 30 patient of Malaria, 22 case

were discharge before 10th day of illness while rest of 8 patient were discharge on or after 10 days of illness. Patient with Dengue fever had late recovery with 4cases out of 23 cases being discharge on or after 10 days of illness.

Conclusion

Fever with thrombocytopenia is one of the most challenging problems in the field of Medicine. Among the patient of acute febrile illness with thrombocytopenia, most common cause is Malaria followed by Dengue, septicemia and Enteric fever. Maximum percentage of patient (n=43) were in the age group of 21-40 years. Male (80%) population were more affected then female (20%). Patient with Malaria had a late recovery as compared to Dengue and fever was most common clinical presentation in this study. The common range of platelet count in the hospitalized patients was above 50,000/mm^3 in 69 cases followed by 21-50,000/mm^3 in 22case and less than 20,000mm^3 in 9 cases. A well organized systemic approach need to be carried out with an awareness of different causes of fever with thrombocytopenia which can help to diagnose the case early and this will reduced the cost, morbidity and mortality associated with it.

References

1. Kothari VM, Karnand DR, Bichile L.S, Tropical infection in the ICU, J Assoc Physician India 2006;54(APR):291-8.
2. Konkle B.Disorders of platlet and vessel wall. In: Longo DL, Fauci AS, Kasper DL, Hauser SL JJL, editor Harrisons Principles of Internal Medicine. 18th ed. The MC. Graw-Hill Companies, 2012-P-965.
3. Prithiviraj Patil etal, To study Clinical evaluation and outcome of patients with febrile thrombocytopenia: International Journal of Scientific and research publication, 2014;4(10);01-03.
4. Bhalara SK, Sahs, Goswani H, Gonsai RN. Clinical and ehological Profile of thrombocytopenia in adult. A tertiary care hospital based cross sectional study, International Journal of Medical science and public health 2015;4(1):7-10.
5. Gandhi Amita; Akholkar Pankaj, Clinical and laboratory evaluation of patient with laboratory evaluation of patient with febrile thrombocytopenia, NJMR, 2015;5(1):43-6.
6. Raikar Shankar, Kamdar Panna, Clinical and laboratory evaluation of patient with fever thrombocytopenia, India Journal of Clinical practice, Vol24, No, 4 sep 2013;360-3.
7. Nair PS, Jain A, Khanduri U.Keneer V ''A Study of fever associated with thrombo-cytopenia JAPI Dec.2003:1173-23.
8. Larson EB, featherand stone HJ, Peterfdort RG.Fever of undertermind origin; Diagnosis and follow up 105 cases, 1970-1980, Medicine 1982;61;269-92.