ORIGINAL RESEARCH PAPER
Volume - 9 | Issue - 9 | September - 2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

CLINICO-HEMATOLOGICAL PROFILE OF IDIOPATHIC THROMBOCYTOPENIC PURPURA IN CHILDREN IN THE DEPARTMENT OF PEDIATRICS, SRI KRISHNA MEDICAL COLLEGE, MUZAFFARPUR

Pediatrics

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ABSTRACT

Objective: To know clinico-hematological profile of idiopathic thrombocytopenic purpura in children
Method: study consists of 110 cases with hemorrhagic diathesis who attended pediatric department, sri krishna Medical College and Hospital, muzaffarpur in outdoor and indoor department during a period from 2018 to 2019. After taking written consent, the detailed clinical history, physical examination and hematological and other related investigations were recorded in proforma and protocol wise laboratory test were done, data were analysed.
Result: In our study out of 110 cases of hemorrhagic disorder in children, 16 cases were found to be present with clinico-hematological features of ITP. Maximum patient lies between 2-6 year of age is 100% , ecchymosis found in 100% cases and epistaxis in 62.5% cases, platelet count is decreased in 100% cases and Hess's tests were positive in 100% cases. Bone marrow examination of all cases showed megakryocytosis.

KEYWORDS

INTRODUCTION

Idiopathic thrombocytopenic purpura (ITP) is one of the commonest causes of thrombocytopenia. Though it affects any pediatric age group, children between 2 to 6 years are commonly affected. (1, 2) It is a benign disorder with good prognosis and outcome. Most patients of this disorder do not require any therapeutic intervention. Very small number of patients need therapeutic intervention due to profound thrombocytopenia and life-threatening bleeding.(1) Primary ITP is an autoimmune disease characterized by platelet count <100 × 109/L in the absence of other secondary causes of thrombocytopenia.(3) No consensus guideline available for management of this disorder and wide variations are found in clinical practice.(4)

This study was carried out with an aim to find the clinico-hematological spectrum of idiopathic thrombocytopenic disorder affecting the children.

MATERIALS AND METHODS

This hospital based observational study was performed on all the 110 patients diagnosed as different types of hemorrhagic diathesis who attended pediatric department, sri krishna Medical College and hospital, muzaffarpur .

In outdoor and indoor department during a period from 2018 to 2019.After taking written consent, all patients were subjected for clinical work up consist of detailed clinical history including relevant family history ,general as well as systemic examination & protocol wise laboratory test were done. Diagnosis of hemorrhagic diathesis was made on the basis of relevant history, physical examination ,and laboratory investigation such as bleeding time(BT),Clotting time(CT), prothrombin type (PT), Activated partial thromboplastin type (APTT) , correction studies and specific coagulation factor assay. Beside of this, other hematological investigation like complete blood counts including peripheral blood smear were also carried out to see blood cell morphology, platelet count. Bone marrow examination, Liver function Tests, Renal function tests, Stool Examination, Special emphasis was given to hemorrhagic features and coagulation studies were done in all the prospective cases.

The physical examination and hematological and other related investigations finding were recorded in preformed proforma. Sample size was taken based on the convenience of the study.

RESULTS

In our study out of 110 cases of hemorrhagic disorder in children, 16 cases were found to be present with clinico-hematological features of ITP. Maximum patient lies between 2-6 year of age are 100%, ecchymosis found in 100% cases and epistaxis in 62.5% cases.

Table -1: Showing Age At Time Of Presentation (N = 16)

Age of Presentation	n	%
0-2	0	00
2-4	4	25
4-6	12	75
Total	16	100

Table – 2: Showing Clinical Presentation In I.T.P. (N = 16)

Clinical Presentation	n	%
Purpuric spots and ecchymosis	16	100
Epistaxis	10	62.5
Bleeding from gums	8	50
Spontaneous bleeding from gums and epistaxis	6	37.5
Spontaneous epistaxis with hematemesis	2	12.5

Table – 3: Showing Haematological Studies In ITP (N = 16)

Investigation	No. Of Cases		
	Normal	Abnormal	% of abnormal
Bleeding time	0	16	100
Clot retraction time	0	16	100
Hess's capillary fragility test	0	16	100
Platelet Count	0	16	100
Activated Partial Thromboplastin time	16	0	0
White blood cell count	16	0	0
Hemoglobin level	12	4	25

All 16 cases were of 3 to 6 yrs. Platelet count is decreased in 100% cases and Hess's tests were positive in 100% cases. Bone marrow examination of all cases showed megakryocytosis. Bleeding time were abnormal in 100% cases .hemoglobin level abnormal in 25% cases and WBC count and activated partial thromboplastin (aPTT) time was normal in all cases.

DISCUSSION

In our study maximum patient lies between 2-6 year of age is 100%. According to study done by journal of Pakistan medical association age of presentation was 6.1 +/- 3.8 years[8]. So our study correlates with this study. Ecchymosis found in 100% cases and epistaxis in 62.5% cases. According to study done by journal of Pakistan medical association, ecchymosis is found in 85% cases and epistaxis is present in 24% cases. Association compared to our study, the incidence of ecchymosis was similar but epistaxis was less in previous study. In present study all 16 cases were of 3 to 6 yrs. in accordance to study Shultz Beardsley 1988 & Study of Parker Levin 1999 in which 85% cases lies in this age group.[7,5]In our study, platelet count is decreased in 100% cases and Hess's tests were positive in 100% cases. Bone marrow examination of all cases showed megakryocytosis . Our

study correlate with the study done by H Farhangi MD et al, where 100% cases show decreased platelet count and 100% show positive Hess test and bone marrow megakaryocytosis. Also these finding are similar to the finding of study done by G C Wang et al[5], H Farhangi et al[6] and Journal of Pakistan medical association[8].

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