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Original Article

Spectrum of skin menifestations in patients presenting with idiopathic thrombocytopenic purpura in a tertiary care hospital

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Abstract

Introduction Idiopathic thrombocytopenic purpura (ITP) is defined as a hematologic disorder, characterized by isolated thrombocytopenia without a clinically apparent cause; it is considered to be a diagnosis of exclusion. The clinical presentation may be acute with severe bleeding, or insidious with mild or no symptoms.

Objectives The aim of this retrospective study was to measure the presenting features and clinical characteristics of ITP in the Hematology department of Lahore General Hospital Lahore, a tertiary care hospital in collaboration with medical department.

Methods 96 patients who were diagnosed with ITP on bone marrow biopsy, in Department of Hematology, Lahore General Hospital between January, 2017 and December, 2019 were selected. Age of the patients, gender, presenting complaints and laboratory tests were recorded.

Results Mean Age of the patients on diagnosis was between 2-60 years. The female: male ratio came out to be 2.09:1. The most frequent complaint was found to be petechiae on the skin (31.25%), followed by bruises, bleeding gums, epistaxis and nasal bleed.

Conclusion ITP was found to be most common in females less than 20 years of age and skin manifestations were observed to be the most frequent presenting complaints.

Key words
Idiopathic thrombocytopenic purpura, thrombocytopenia, skin manifestations.

Introduction

As the name indicates "immune thrombocytopenic purpura" (ITP) is an autoimmune disorder which is characterized by accelerated destruction and decreased production of the platelets leading to thrombocytopenia. This accelerated destruction is said to be mediated by antiplatelet antibodies.[1]

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Based on international consensus, ITP should only be diagnosed if the platelet counts are observed to be repeatedly below 100×10^9/l.[1,2]

The incidence of ITP has been stated to be between 0.2 and 0.4 new cases per 10,000 per year with prevalence of 0.9-2.6 per 10,000 and it has been seen to have a female preponderance.[3] It has been seen that 40-50% of cases of ITP recover within the first month and 70-80% of cases improve in the first 6-12 months of diagnosis. The condition becomes chronic in 20-30% of patients.[4] Considering this, ITP can be classified clinically as acute (diagnosis to 3

months), persistent (3 to 12 months) and chronic (lasting for more than 12 months). It is a self-limiting condition and may not require any treatment.[5]

Clinical picture of ITP varies from patient to patient. Some patients present with minor bleed as in petechiae, purpura and epistaxis, or severe and even life threatening as in the case of intracranial hemorrhage and massive gastrointestinal or urinary tract bleeding.[6]

Bleeding under the skin or into mucosal membranes is called purpura and is sub-divided into petechiae which are pinpoint reddish-purple lesions, less than 2 mm in size and larger confluent lesions referred to as ecchymoses/ bruises. Purpuric lesions do not blanch when pressure is applied to the skin.[7,8]

The present study was carried out on patients presenting with thrombocytopenia, admitted in the hospital irrespective of their symptoms, to study the frequency of the clinical symptoms.

Materials and Methods

A retrospective study was carried out on 96 patients with thrombocytopenia who came to the hematology lab for bone marrow biopsy. All patients of proved ITP were included in the study over a period of 2 years from January 2017 to December 2019. The patients were referred to our hematology department for bone-marrow biopsy, after excluding secondary causes of thrombocytopenia. Patients with clinical or laboratory evidence of any secondary cause of thrombocytopenia or bone marrow pathology like aplastic anaemia, leukaemia etc. were excluded from the study.

Result

The age range in our study was from 2 years to 60 years. Most of the cases were seen between 0-20 years of age i.e. 45(46.87%). The rest were 34 (35.41%) and 17 (17.7%) in 21-40, and 41-60 years respectively **(Table 1)**.

It was found to be more common in females as compared to males with a ratio 2.09:1 **(Table 2)**.

In this study we observed that 65.62 % of these patients presented with platelet count ranging between 10-20 x 10 9/l **(Table 3)**.

The commonest symptom was found to be petechiae i.e. 31.25% followed by bruises, bleeding gums, epistaxis, nasal bleed and menorrhagia as 26.04%, 23.9%, 12.5%, 11.45% and 10.41% respectively **(Table 4)**.

Discussion

Immune thrombocytopenic purpura is a common

Table 1 Age incidence in patients with ITP

Sr.No.	*Age group (in yrs)*	*n (%)*
1	0-20	45 (46.8)
2	21-40	34 (35.41)
3	41-60	17 (17.7)

Table 2 Gender distribution of ITP

Gender	*n (%)*
Male	31 (32.29)
Female	65 (67.7)

Table 3 Incidence of TC in ITP

Platelet count ($x10^9$/l)	*n (%)*
>20	20 (20.8)
10-20	63 (65.62)
<10	13 (13.54)

Table 4 Frequency of clinical presentations in ITP (n=96)

Sr. No.	*Clinical feature*	*n (%)*
1	Petechiae	30 (31.25)
2	Bruises	25 (26.04)
3	Gum bleed	23 (23.9)
4	Epistaxis	12 (12.5)
5	Nasal bleed	11 (11.45)
6	Menorrhagia	10 (10.41)

hematologic disorder. A study conducted on clinico-haematological features of ITP concluded that it is predominantly seen in females and may be associated with autoimmune disorders at the time of diagnosis.[9] Regarding the epidemiological data of ITP in our hospital, the females outnumbered the males, and two other studies conducted previously in Pakistan, by Farid *et al*. and Mushtaq *et al*. also observed the same predominance.[10,11]

Aetiology and clinical features of patients presenting with bleeding due to thrombocytopenia was the objective of another study which concluded that epistaxis and gum bleeding were the leading clinical manifestations in adult population.[12] In another study petechiae and bruises were the commonest clinical findings of ITP.[13] Petechiae was the commonest presenting feature in the present study followed by bruises and bleeding gums, which was in consistence with the study carried out by Rehman *et al*.[12]

Conclusion

Our study concluded that ITP was most frequent below 20 years of age with female predominance. Furthermore it was observed that skin manifestations were the most common clinical feature in the study group.

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