Platelet size deviation width, platelet large cell ratio, and mean platelet volume have sufficient sensitivity and specificity in the diagnosis of immune thrombocytopenia


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We investigated the significance of the platelet indices, mean platelet volume (MPV), platelet size deviation width (PDW), and platelet-large cell ratio (P-LCR), in the diagnosis of thrombocytopenia by comparing these levels in 40 patients with hypo-productive thrombocytopenia (aplastic anaemia; AA) and 39 patients with hyper-destructive thrombocytopenia (immune thrombocytopenia; ITP). The sensitivity and specificity of platelet indices to make a diagnosis of ITP were also compared. All platelet indices were significantly higher in ITP than in AA, and platelet indices showed sufficient sensitivity and specificity. The area under the curve (AUC) of the receiver operating characteristics curve of platelet indices was large enough to enable the diagnosis of ITP. P-LCR and PDW had the largest AUCs, which indicated that these values were very reliable for immune thrombocytopenia. Our results suggest that these indices provide clinical information about the underlying conditions of thrombocytopenia. More attention should be paid to these indices in the diagnosis of thrombocytopenia.

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