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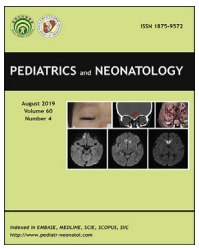

Editorial

Modifying risk factors of chronicity in children with immune thrombocytopenia: Still underway

Immune thrombocytopenia (ITP) in children is one of the most commonly encountered benign hematologic diseases in daily practice for general pediatricians and pediatric hematologists. In general settings, clinical presentations include an incidental finding in an asymptomatic child, abrupt petechiae/ecchymoses, mucocutaneous bleeding, rarely seen life-threatening bleeding, etc.[1] During the evaluation phase, an experienced personnel collects detailed history and performs physical examination, complete blood count with differential, and review of peripheral blood smear. After the clinical diagnosis of ITP is confirmed by isolated thrombocytopenia without findings suggestive of other diseases, the treatment management is based on the severity/grading of bleeding symptoms, ranging from "watchful waiting" to short-term glucocorticoids or intravenous immune globulin (IVIG). Most patients' symptoms and platelet count recover within approximately 1–3 months without sequelae. However, in approximately 30% patients, the symptoms and low platelet count persist for longer than 6 months or 1 year (chronic), in which case the patients are required to undergo regular follow-up or long-term medication use. Because of the myriad uncertainties of the underlying immunopathogenesis and the nature of ITP, being a diagnosis of exclusion, currently we still do not have a good stepwise procedure or treatment that predicts or alters the course of ITP becoming chronic.

In this regard, Gungor T et al. retrospectively analyzed the clinical courses and responses of 211 pediatric patients with ITP diagnosed or referred to a tertiary hospital from 2008 to 2012.[2] Not only presentations and responses were carefully compared, but also this study confirmed risks of chronicity, including age (>10 years), no recent viral infection history, higher initial platelets count (>20 $\times$ 10^9/L), and females. Furthermore, in terms of initial response and recurrence rate, no significant differences were found between methylprednisolone, IVIG, and no treatment use. Therefore, this finding corresponds to the current consensus that treatment may not always be necessary for the initial recovery of platelet count. Thus, we could be more confident with only reserving the initial treatment options for patients with high-grade bleeding symptoms or risks of life-threatening bleeding, such as intracranial hemorrhage.

Nevertheless, one should be cautious when interpreting these results and applying them to practice. Although there is a statistical decrease in the rate of chronicity in patients receiving IVIG, the lack of multivariate analysis and initial management based on platelets count as a confounder slightly undermine the stance in this article. (All ITP patients with platelet count less than 20 $\times$ 10^9/L received medications.) Despite the fact that it might be appealing to provide treatment for all patients with ITP to reduce the rate of chronicity, it is not always the right choice, considering the side effects or economic impacts.

Since the publication of ITP guidelines in 2010 international consensus report and in 2011 by American Society of Hematology, an increasing number of practitioners have adopted more conservative strategies in the initial management regardless of platelet counts.[3,4] However, debates still remain. One of the biggest debates is whether the treatment can decrease the rate of chronicity. Accordingly, in Gungor's study, there is a statistically lower risk of chronicity in patients receiving the initial treatment, especially IVIG (ref. 2 Table 1). In addition, a recent multicenter study from Intercontinental Co-operative ITP Study Group Registry II confirmed that the combination therapy of corticosteroid and IVIG has a higher rate of achieving remission at 12 months.[5] Conversely, another recently published prospective randomized controlled trial compared a single dose of 0.8 g/kg IVIG with no treatment in the initial management of ITP and revealed no influence on the development of chronic ITP.[6] These conflicting results indicate that we are still in need of a well-designed study to identify ITP patients who need treatment even in the absence of severe bleeding. In conclusion, to identify the true etiological agent that contributes to chronicity and provide the best evidence-based

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care for pediatric patients with ITP who likely become chronic, more efforts are indispensable.

Conflicts of interest

None.

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