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CASE REPORT

Alternative therapy for persistent childhood immune thrombocytopenic purpura unresponsive to intravenous immunoglobulin

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Summary
Objective: Presentation of a case illustrating the benefits of traditional Chinese herbal granules for treatment of immune thrombocytopenic purpura in children.
Clinical features: A 4-year-old girl presented with persistent immune thrombocytopenic purpura refractory to the first-line conventional treatment of steroids and intravenous immunoglobulin over 7 months. She was brought to the traditional Chinese medical clinic at the Chang Gung Memorial Hospital in 2011 for alternative therapy. She received a modified Chinese herbal formula, Zi-Ying-Jiang-Huo-Tang (Phellodendri Combination), for 6 months and was followed clinically by both a pediatrician and a traditional Chinese medical doctor. The patient had a dramatic improvement in platelet count and entered complete remission after treatment with the traditional Chinese medicine. There was no recurrence of disease or side effects of treatment noted during the 12-month follow-up period.
Conclusions: Our case report suggests that collaborative monitoring of treatments with traditional Chinese medicine may prove beneficial in the management of childhood persistent immune thrombocytopenic purpura. A larger clinical study is warranted for further evaluation of the role of Zi-Ying-Jiang-Huo-Tang in treating immune thrombocytopenic purpura.

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Introduction

Immune thrombocytopenia (ITP) is a disorder in which immune-mediated destruction of platelets destruction can lead to an increased risk of bleeding and purpura.[1,2] Children are vulnerable to ITP, and the estimated incidence in the pediatric population is 5 in 1,000,000 children.[3] The presentation of ITP ranges from an asymptomatic presentation to petechiae, purpura or bleeding.[4]

According to the Vicenza Consensus Conference of an International Working Group,[2] the threshold for diagnosis of ITP is a platelet count less than 100×10^9/L. ITP can be classified as primary or secondary by etiology and is also classified by clinical duration: newly diagnosed (within 3 months from diagnosis), persistent (3—12 months from diagnosis) or chronic (more than 12 months). The majority of children with absent or minimal bleeding can be initially managed with observation. Conventional treatment options include steroids, intravenous immunoglobulin (IVIG), anti-D immunoglobulin and splenectomy.[1,5,6] The goal of treatment for ITP in children is not necessarily to reach a normal platelet count level but to attain a platelet count sufficient to maintain hemostasis. All conventional treatments have unpleasant side effects and likely do not increase the probability of a desirable recovery.[6—9]

Most children suffering from ITP reach complete remission with or without treatment,[3,4,6,7,10] but a small portion of patients suffering from persistent ITP will eventually require splenectomy or another second-line treatment.[5,6] In this report we present a child with persistent ITP unresponsive to IVIG who achieved complete remission after treatment with complementary and alternative medicine (CAM).

Case report

A 4-year-old girl presented to a local pediatric clinic in March 2011. She had an episode of fever on her first day of kindergarten without any other symptoms such as chills, cough, rhinorrhea, nausea, vomiting, diarrhea or dysuria. The fever subsided spontaneously on the day of presentation. However, on the second day, numerous diffuse ecchymoses were noted over the total body surface. She was previously healthy and the family denied any history of traumatic injury, medication use, loss of body weight, palpable masses, or edema. There was no family history of hematologic diseases. She reported a liking for fried chicken and snacks. Initial laboratory investigation revealed isolated thrombocytopenia (4000/μL) with normal C3, C4, anti-nuclear antibody, hemoglobin, leukocyte count and PT/aPTT levels. She was subsequently diagnosed with ITP and received treatment with methylprednisolone and IVIG upon admission. The platelet counts then reached the normal range, but 2 months later she presented with thrombocytopenia with purpura again. She was referred to a pediatric hematology clinic at a tertiary medical center and received three more courses of IVIG infusion with oral methylprednisolone treatment over the following 5 months. Her platelet count increased after each IVIG injection but quickly declined after hospital discharge (Fig. 1). She was diagnosed with persistent ITP, and other second-line treatment including splenectomy and rituximab was discussed with the family. Due to the poor response to conventional treatment and concerns about potential side effects of second-line therapy, the patient's parents considered the potential benefits of alternative therapies such as traditional Chinese medicine (TCM) for persistent ITP. After discussion, she was referred to our TCM clinic in November 2011.

During the first visit to our TCM clinic, the physical examination and Four TCM Examinations revealed some significant exam findings. She had a thin body contour and an erythematous facial complexion. Tiny, non-blanching, and bright red petechiae (less than 2 mm in diameter) were noted on the extensor and flexor surfaces of upper and lower extremities. The patient reported night sweats, a dry mouth

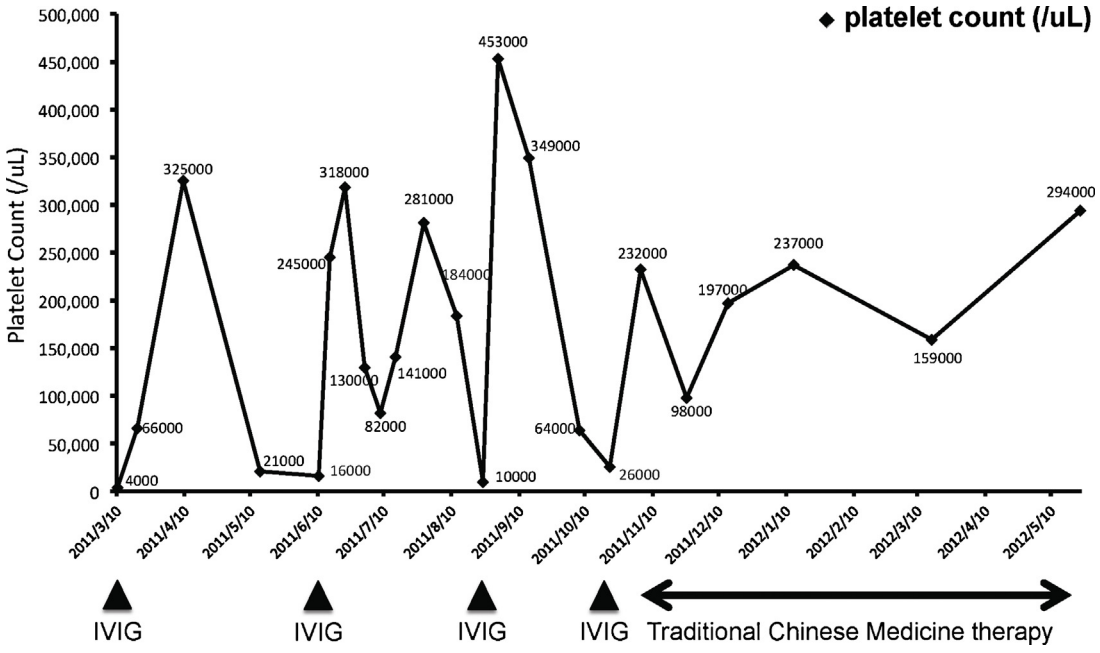

Figure 1 Platelet count levels throughout the treatment course.