



Comprehensive therapy based on pediatric Tuina in the treatment of Idiopathic Thrombocytopenic Purpura: A case report

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ABSTRACT

Introduction: Idiopathic thrombocytopenic purpura (ITP) is characterized by extensive skin, mucosal or visceral bleeding, and the platelet count is less than $100 \times 10^9/L$. The etiology of ITP is unclear, the pathogenesis is complex and diverse, and there is no specific drug. Tuina and moxibustion are traditional external treatments of traditional Chinese medicine, which have the advantages of safety, effectiveness, and no adverse reactions. This paper reports a clinical case of ITP treated with TCM comprehensive therapy based on pediatric Tuina with satisfactory curative effect.

Objective: To observe the clinical efficacy of pediatric Tuina in the treatment of patients with ITP and to explore the feasibility of Tuina in the treatment of ITP.

Case description: Sex, 8 years old, seeing a doctor on November 25, 2021. Two months ago, the patient suffered from subcutaneous hemorrhage in both lower limbs due to unknown causes, and the platelet count was as low as $30 \times 10^9/L$. he was diagnosed with ITP in another hospital, then received oral prednisone acetate treatment, 5mg every time, 3 times a day, after meals, treated with traditional Chinese medicine at the same time. After 2 months of treatment, subcutaneous bleeding disappeared, and platelet count increased, accompanied by obesity, dizziness, joint pain, facial acne, and other adverse reactions. With Tuina treatment, once a day, 20 minutes per time, moxibustion once a day, 20 minutes per time, and taking Prednisone Acetate, the platelet count, body weight, and adverse reactions were gradually decreased. The treatment lasted for 12 weeks and was followed up for 1 month.

Results: Subcutaneous hemorrhage disappeared, dizziness and joint pain disappeared, weight loss, facial acne cured, bright and shiny skin, good mental state, platelet count fluctuated at about $80 \times 10^9/L$, liver and kidney function examination were normal. The patients were followed up for 1 month without discomfort and could return to normal life and study.

Conclusion: The report of this case shows that under the guidance of the basic theory of traditional Chinese medicine, the comprehensive therapy of pediatric Tuina combined with moxibustion can improve the clinical symptoms and quality of life of patients with ITP.

Keywords: Chinese medicine; pediatric Tuina; Idiopathic thrombocytopenic purpura; comprehensive therapy

Introduction

Idiopathic thrombocytopenic purpura (ITP) accounts for about 30% of hemorrhagic diseases [1], which is characterized by extensive skin, mucous membrane, or visceral bleeding, and the platelet count is less than $100 \times 10^9/L$ [2,3]. The annual incidence rate of children under 18 years old is about 8.8 per 100000 people [4,5]. Under the guidance of the theory of traditional Chinese medicine, pediatric Tuina is a kind of external therapy

of traditional Chinese medicine, which is mainly used to prevent and cure diseases, strengthen the body and promote intelligence at specific acupoints or parts of children's body. Compared with drug therapy and other invasive therapy, it is safe, effective, without adverse reactions and readily accepted by children, so it is widely used in pediatric clinics [6-8].

This paper reports a case of ITP treated mainly by pediatric Tuina combined with moxibustion. After 12

weeks of treatment, the symptoms of subcutaneous hemorrhage disappeared, weight loss, dizziness, joint pain and other adverse reactions improved, platelet count increased, and the curative effect was satisfactory. As far as we know, this is the first literature report on the treatment of ITP with traditional Chinese medicine (TCM) based on pediatric Tuina.

Case report

Male patient, 8 years old, height 150cm, weight 50kg, November 25, 2021. Two months ago, there was a subcutaneous hemorrhage in both lower extremities. During the routine blood examination, the patient's platelet count was $30 \times 10^9/L$, which was significantly lower than the normal level. Other related examinations were perfected and other diseases that might lead to thrombocytopenia were excluded. Idiopathic thrombocytopenic purpura (ITP) was diagnosed in other hospitals. After confirming the diagnosis, the patients were given oral prednisone acetate treatment (Zhejiang Xianju Pharmaceutical Co., Ltd., production batch number: 190428). At the same time, combined with the internal administration of traditional Chinese medicine, after 2 months of treatment, the platelet count began to rise gradually, accompanied by weight gain, dizziness, joint pain and other adverse reactions. Out of consideration for the long-term safety of hormone drugs, the patients' families hope to seek pediatric Tuina treatment.

Before the Tuina treatment, the patient's complexion was yellow, with no luster and general mental state. The stool was thin, with the symptoms of dizziness and pain in both lower limbs complained, the platelet count was $72 \times 10^9/L$, and the liver and kidney function was normal. Physical examination showed that the patient's face showed flushing due to prednisone acetate and acne on local facial skin as figure 1. The patient denied a history of familial genetic diseases, surgical history and other diseases. In accordance with the principle of syndrome differentiation and treatment of traditional Chinese medicine, and according to the comprehensive judgment of patients' symptoms and signs and other information, we have formulated the treatment principles of warming “yang” and dredging the *Governor Meridian*, invigorating the spleen and resolving dampness.



Figure 1 The patient showed pathological obesity and redness due to taking prednisone acetate.

Intervention

Tuina therapy is performed by a tuina therapist who has been in clinical practice for more than 7 years once a day for 12 weeks. The specific operation procedures are as follows:

1. Overall conditioning

The patient took a prone position and rubbed the whole spine in the direction of Governor Meridian with Tuina method, 3-5 times from bottom to top; kneading the first sideline and second sideline of the back of *Foot-Taiyang* Bladder Meridian, 3-5 times from top to bottom; chiropractic, 3-5 times from bottom to top; kneading *Tianshu* (ST25), *Zhongwan* (CV12), *Dazhui* (GV14) and *Pishu* (BL20). with heat as the degree. 5minutes.

2. Selective stimulation of sensitized acupoints on the back

In the prone position, according to the principle of spinal neuroanatomy, the cord or nodular reaction points were found by two-handed finger-abdomen symmetrical palpation or single-hand three-finger sliding palpation, and stimulated by kneading method to the degree that the patient could bear it. Five minutes.

3. Symptomatic treatment

For lower limb joint pain, kneading Hongchi (Large Pool Point), Baichong (EX-LE3), Xuanzhong (GB39), aiming at dizziness, Pinching Fengchi (GB20), kneading Dazhui (GV14), aiming at defecation is not formed, tonifying Spleen channel line, rubbing abdomen, kneading Guanyuan (CV4), Zusanli (ST36), Weishu (BL21), each acupoint for half a minute, a total of 5 minutes.

Moxibustion was treated once a day for 20 minutes. Before treatment, we put the ignited moxa sticks (Nanyang Xiancao Pharmaceutical Co., Ltd., production batch number: XC21C06041) in the moxibustion box, and then put the moxibustion box near the Guanyuan (CV4) in the lower abdomen. After moxibustion, patients are told not to scratch or take a shower in order to avoid skin damage.

The dosage of prednisone acetate was gradually reduced according to platelet count, body weight and

adverse reactions. The dosage of prednisone acetate for the first treatment on November 25, 2021 was 5mg, 3 times a day, after meals. On December 14, 2021, the platelet count of the patient was $62 \times 10^9 / L$, the mental state was good, and the dosage was adjusted to 5mg every time, twice a day. On January 30, 2022, the platelet count was $77 \times 10^9 / L$, weight loss, and the dosage of prednisone acetate was adjusted to take 1.25mg once every other day. On February 11, 2022, the patient had a platelet count of $56 \times 10^9 / L$, continued weight loss, dizziness and joint pain relieved, facial acne improved, and stopped using prednisone acetate as figure 2. After that, he only received pediatric tuina combined with moxibustion until February 26, 2022, and were followed up for 1 month.

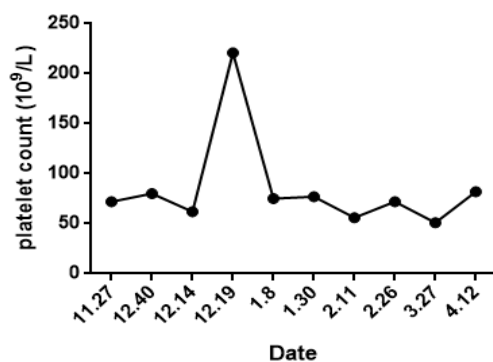


Figure 2 The changes of platelet count within 12 weeks after receiving comprehensive therapy.

Results

At the end of 12 weeks of treatment, on February 26, 2022, the patient's platelet count was $72 \times 10^9 / L$, his body weight decreased from 50kg to 45kg, liver and renal function was normal, dizziness and pain in both lower limbs disappeared, subcutaneous hemorrhage disappeared, mental health was good, facial acne disappeared, the complexion changed from dark yellow to bright and shiny as figure 3, oral prednisone acetate was stopped. During the follow-up on April 12, 2022, the patient's platelet count increased to $82 \times 10^9 / L$. the patient felt that he slept well, his spirit improved, his diet was normal, and there were no other discomfort symptoms. He felt that he had recovered to his daily life and study. We obtained the consent of the patient and signed a letter of information to release this case report and accompanying images. In accordance with the ethical standards of the Ethics Committee of the second affiliated Hospital of Yunnan University of traditional Chinese Medicine.



Figure 3 The patient's face was getting shiny and bright after 12weeks treatment.

Discussion

Traditional Chinese medicine believes that bleeding is related to the spleen. We stimulate Tianshu (ST25), Zhongwan (CV12), Dazhui (GV14) and Pishu (BL20) by pressing and kneading. These acupoints are considered to be closely related to the function of the spleen and help to restore the function of the spleen[9]. We use chiropractic techniques to stimulate the spinal nerve segments corresponding to the spleen (T11, L2) [10]. Traditional Chinese medicine believes that the spine is equivalent to Governor Meridian, which maintains the life activities of the human body, so stimulating Governor Meridian plays a positive role in promoting ITP [9].Aiming at the symptoms of dizziness, lower limb joint pain and loose stool, acupoints such as Fengchi (GB20), Xuanzhong (GB39) and Zusanli (ST36) were selected for treatment. Guanyuan (CV4) is considered to be an important part of human body to store energy. We use moxibustion therapy to stimulate the energy of human body and promote the recovery of ITP by stimulating Guanyuan (CV4).

This case report shows that the comprehensive therapy based on pediatric tuina has a significant clinical effect on patients with ITP and may be a helpful supplementary and alternative therapy.

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