Treatment of Idiopathic Thrombocytopenic Purpura in a 23-Years-old Patient by Iranian Traditional Medicine: A Case Report

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Abstract

Idiopathic thrombocytopenic purpura is a common disease in children and young adults, as well as being the most common cause of acute thrombocytopenia in patients with good general health status. The case is a 23-years-old woman with no history of disease or any type of temperament disorder. She was referred to the haematology and oncology specialists in October 2014, following a sudden drop in platelet count, and complaints regarding numerous ecchymosis lesions in the upper and lower limbs. She was admitted to the Imam Reza Hospital in Tabriz. Due to the repeated reduction of platelet count in the patient, the oncologist ordered splenectomy, which is the removal of spleen. In December 2014, she was brought to the traditional medicine clinic. Her platelet count was 17,000. The patient received health and nutritional considerations. Pharmaceutical measures, including administering medical herbs and combination drugs, were taken with the patient’s temperament and the disease status driving the course. Several practices, including cupping, massage, blood-letting, meditation, and yoga, and eventually rose water incense, were part of a compiled programme for the patient. In subsequent sessions, the platelet level considerably increased and after a month, was almost close to the normal level. After 40 days of treatment, the platelet count reached the normal level, and finally in July 2015, with full recovery of the patient, the corticosteroids and herbal medicines were completely stopped. As is evident from the monthly monitoring of the patient until September 2016, she showed no clinical or laboratory symptoms explaining thrombocytopenia, and her platelet count was at normal level.

Keywords: Idiopathic Thrombocytopenic Purpura, Traditional Medicine, Iranian Effective Medicine

Introduction

Idiopathic thrombocytopenic purpura typically manifests as isolated thrombocytopenia, and mucocutaneous haemorrhage. In other words, the disease is classified in the category of thrombocytopenia caused by environmental degradation, and can be identified and detected by reduced platelet life span [1]. Idiopathic thrombocytopenic purpura is a common disease of childhood and youth, as well as the most common cause of acute thrombocytopenia in a patient with good general health status [2]. The disease is caused by a kind of antibody produced by an antigenic factor like a viral disease or immunization. This causes the destruction of platelets, which are covered with the antibodies, in the spleen. This disease is determined by the sudden onset of petechiae, purpura, and epistaxis. Usually thrombocytopenia is severe. Adenopathy or remarkable hepatosplenomegaly is unusual, and red blood cells and white blood cells counts are normal. Evaluation of the bone marrow for diagnosis of idiopathic thrombocytopenic purpura is usually not required. Serious bleeding, especially intracranial haemorrhage, occurs in less than 1% of the patients with idiopathic thrombocytopenic purpura [3]. In cases where the platelet count is more than 30,000 per millilitre, treatment will be rarely necessary. In case of clinical haemorrhage or severe thrombocytopenia where platelet count is less than 20,000 per millilitre, treatment options include prednisolone, intravenous immunoglobulin, and RhoGAM [4]. It appears that all of these approaches are based on reducing the clearance of sensitized platelet, and, to a lesser extent, reducing the production of antibodies [5]. Today, with all the medical advancements, there are still serious differences of opinion on the best treatment for idiopathic thrombocytopenic purpura. Splenectomy in acute idiopathic thrombocytopenic purpura is used only in cases of life-threatening haemorrhage. The risks associated with splenectomy, including surgery and sepsis caused by encapsulated bacteria such as pneumococcus, always are assessed in comparison with severe haemorrhage [6]. Various investigations have been carried out regarding the therapeutic effects and side effects of each of the treatment methods and the most common surgical procedures [7-8]. But definite superiority has not been explained for any of the methods, and each method has its own advantages and disadvantages. Therefore, the treatment of idiopathic thrombocytopenic purpura is very complicated, and requires great precision. In addition, the strategies of these treatments depend on familiarity with the clinical symptoms and treatment-associated side effects, as well as on the severity of the disease and its prognosis based on valid clinical classifications [9]. Hence, it is important to control and manage the disease, and so the patients should regularly visit and be monitored by their doctors. Depending on the status of the disease, the doctor regularly changes the type of treatment. The most important goal in the treatment of idiopathic thrombocytopenic purpura is to avoid splenectomy as much as possible. In other words, idiopathic thrombocytopenic purpura, to some extent, is treatable by current chemotherapy methods, but in some of the patients there is relapse, and some may also develop resistance to this treatment method. The results of studies for improving treatment methods suggest that in order to reduce the side effects of medications or splenectomy surgery, doctors must use the compounds that specifically affect the disrupted signalling pathways in cancer cells. Today, it has been proved that there are several valuable compounds in medicinal herbs that can alter the function of the immune system, and also can help detoxify the intestines and liver. In addition, such compounds, as antioxidants, stimulate the production of enzymes that elim-
Treat the toxicity of different substances while maintaining cell and nucleus structures [10-12]. Therefore, understanding and using appropriate medicinal plants, alongside other traditional medicine treatments, can in some cases lead to better treatment of blood diseases. To summarise, all treatments that are used to treat idiopathic thrombocytopenic purpura have relative effects on the disease, and can even cause severe therapeutic side effects. Therefore, the aim of this study was to evaluate the methods and new combination drugs with the highest efficacy in the shortest period of time, based on a combination of modern and traditional Iranian medicine, also referred to as Iranian effective medicine, and to report it scientifically.

Case Presentation

Medical History and Examination according to Modern Medicine

The patient was a 23-years-old female suffering from idiopathic thrombocytopenic purpura disease for three months, and she resided in Tabriz. The patient, without any history of illness and temperament disorder, had a sudden drop in blood platelets. She was referred to a haematology and oncology specialist in October 2014. She had complaints about ecchymosis lesions in upper and lower limbs, commonly known as subcutaneous black spots. After clinical examinations and paraclinical tests (blood platelets 9,000 in full blood cell count), the patient was diagnosed with idiopathic thrombocytopenic purpura, and was admitted to the Imam Reza hospital in Tabriz. The patient received corticosteroid therapy regime that caused her blood platelet count to reach 70,000, but unfortunately, after a short time the platelet level dropped again to 17,000. Due to repeated reduction of the platelet level, the haematologist/oncologist ordered a splenectomy surgery, which was not found to be acceptable by the patient and her family. She was discharged from the hospital with personal consent. She came to the Hajtaleb Medical Complex of Alternative and Complementary Medicine in December 2014, upon a relative’s recommendation. The patient had brought all her medical records. Her blood platelet count, at that point of time, was still 17,000.

Medical History and Examinations according to Iranian Traditional Medicine

The patient had no knowledge of therapeutic methods of traditional medicine, and her everyday life did not comply with nutritional practices and principles of balance preservation that traditional medicine recommends. According to the clinical history of the patient, she had no diseases and temperament disorders before the impairment of the platelet level. After developing idiopathic thrombocytopenic purpura, due to the corticosteroid use, she developed temperament disorders and her appearance was flushed and swollen. The patient, due to serious concerns about the possibility of splenectomy and repeated thrombocytopenia, was experiencing severe stress and relative depression. The patient had rapid heart rate and her skin was warm and moist when touched, mainly due to the use of corticosteroids.

Treatment

Measures to Protect Health and Nutrition

Therapeutic interventions for the patient were started in December 11, 2014. In the first session, the patient underwent thorough counselling about the disease and methods of effective medicine. She was provided with the necessary explanations about medications and procedures which were to be used. Considering that the patient and her family had lost hope due to the previous unpromising results of modern treat-
ments, the necessary counseling was given in order to gain their trust on effective medicine approach. Dietary instructions and especially the six essential principles (the six principles of health in Iranian traditional medicine include air, movement and rest, sleep and wakefulness, retention and vomiting, food and drinks, sensual features) were fully explained to the patient. A CD containing dietary guidelines was given to the patient to be familiar with. Upholding the principles of nutrition in traditional medicine actually helps the treatment process. In particular, some foods such as pickles and foods with cold temperament including vinegar, butter-milk, yogurt, cold water, salad, ice cream, and certain fruits, were removed from the patient’s diet. To make her comfortable with the regimen, milk replaced the buttermilk that was removed, vegetables were introduced to her daily diet, and the patient was supposed to consume each food with its opposite (complementary) temperament, to balance the humour. The consumption of meat was reduced, and it was suggested that meat be eliminated from the diet for a while. In addition, nutritious foods were recommended to bolster the patient’s physical strength. The patient was advised to avoid food containing additives. It was emphasized that compliance with the nutrition guideline makes the treatment process very effective.

Pharmaceutical Measures

According to the patient’s temperament and disease status, medical herbs and combination drugs were used. Pharmaceutical measures in this case included using drugs that are suitable alternatives to steroids, in order to strengthen her physical power. Given that the patient was female and had monthly menstrual bleeding, we were careful that the treatment does not intensify bleeding and cause severe drop in platelet level. Some of the herbal medicine, due to their hot temperament, can increase menstrual bleeding, but outside of the period time they are useful for treatment. Thus, the drugs were divided into three groups: a) drugs given to the patient outside of monthly bleeding period, b) drugs given to the patient during menstrual bleeding, c) drugs that have no effect on monthly bleeding and given to the patient all along the treatment process. Also, in this case, coinciding with the start of herbal medicines, the use of corticosteroid also was reduced, so that it was slower than what is recommended for corticosteroids discontinuation, and finally, at the end of treatment was discontinued. To avoid a sharp drop in platelets level in the patient following the corticosteroids discontinuation, she was made to undergo regular control of clinical examinations and full blood count test.

A) Herbal medicines prescribed outside of menstrual bleeding: A decoction (sodden) of chamomile, thyme, mallow, and marigold was administered, about one to three cups daily. Depending on the platelet level of the patient, the prescribed amount of this decoction changed during the treatment process. In addition to these four plants, herbal potions were used to strengthen the body, and to help increase blood production and platelet level.

B) Herbal medicines prescribed during menstrual bleeding: To prevent excessive bleeding during menstruation, the plants with hot temperament were temporarily removed. Also, for reducing the bleeding, sumac was used, along with chamomile, marshmallow and thyme.

C) Prescribed herbal medicines independent of monthly menstrual bleeding: Sekanjabin, an Iranian traditional drink, is one of the best medications for balancing the temperament and for improving the immune system. The consumption of two spoons sekanjabin in a glass of wa-
A 15-minute massage with sesame oil, especially on the back, was advised every night during the treatment period.

**Blood-letting:** Blood-letting, in order to take blood in patients with low level of platelets is contra-indicative. But we have noticed, over the years of clinical experience, that blood-letting performed with superficial scratches between the shoulders and on the back of liver is highly effective in these patients. This type of blood-letting should be performed by a doctor, and particularly in areas of the body’s chakras to strengthen the energy of the body and immune system. This eventually leads to increased physical strength and platelet level. The full blood count test should be performed before and after each blood-letting. In this case, more than seven sessions of was performed at two-week intervals, and the blood platelet count was measured before and after each blood-letting episode.

**Meditation and yoga:** One of the recommended instructions in these patients is relaxing exercises that help balance the temperament and reduce anxiety. The various systems in the body function better when there is a balance of temperament in the patient. Daily meditations, and yoga twice a week, were prescribed to this particular patient.

**Rose water inhale:** Rose water inhalation is one of the best methods of traditional medicine for enlivening the central nervous system, which strengthens and ultimately, enhances the functions of the various systems in the body. It was advised that every night, the patient adds few tablespoons of rosewater in a bowl of boiling water and inhales.

### Treatment Results

After the first treatment session, initial increase in the platelet level was observed. This boosted the confidence of the patient’s family. In subsequent sessions, platelets considerably increased, and after a month, almost approached a normal level. After 40 days of treatment, the platelet count normalized, and finally steroids and herbal remedies were completely stopped in July 2015, indicating complete recovery. The patient was monitored monthly, until September 2016. There were no clinical symptoms or laboratory results explaining thrombocytopenia, and her platelet level remained normal. Table 1 shows the number of platelets recorded in the patient’s cell blood count tests in accordance with the treatment process is from October 2014 to September 2016.

<table>
<thead>
<tr>
<th>NO.</th>
<th>Location of Treatment</th>
<th>Date of CBC Test</th>
<th>Blood Platelets count</th>
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<tbody>
<tr>
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<td>24 Sep 2014</td>
<td>9000</td>
</tr>
<tr>
<td>2</td>
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<td>11000</td>
</tr>
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<td>25 Sep 2014</td>
<td>22000</td>
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<td>Hospital</td>
<td>28 Sep 2014</td>
<td>55000</td>
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<td>5</td>
<td>Hospital</td>
<td>29 Sep 2014</td>
<td>70000</td>
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Table 1: the number of platelets recorded in the patient’s cell blood count tests in accordance with the treatment process is from October 2014 to September 2016.
Discussion

Idiopathic thrombocytopenic purpura is a disease mediated by the immune system. It results from the production of autoantibodies against platelet glycoproteins. These antibodies cause platelet phagocytosis in the reticuloendothelial system, which results in thrombocytopenia and bleeding manifestations. Patients may show symptoms like petechiae, ecchymosis, and mucosal bleeding. Although in most cases of acute idiopathic thrombocytopenic purpura, the disease subsides spontaneously within six months of diagnosis, but the incidence of severe thrombocytopenia during disease attack, often necessitate the need for therapeutic intervention at this stage of the disease [1-3]. There are several medication treatments for controlling idiopathic thrombocytopenic purpura. The most common methods of treatment include the use of corticosteroids, intravenous immunoglobulins, and RhoGAM ampule. To date, different studies have been carried out on the therapeutic effects of each of these methods, and their advantages and disadvantages, as well as possible side effects, have been evaluated. However, no evidence has been found regarding the superiority of one treatment method over the others. Each method has its own advantages and disadvantages. The side effects of corticosteroids has been reported and proved by numerous studies. One of the common treatments of idiopathic thrombocytopenic purpura in patients is using intravenous immunoglobulins. But some studies report complications like neutropenia, associated with this treatment. Intravenous immunoglobulin is used in numerous autoimmune diseases and immunodeficiency, in addition to treating idiopathic thrombocytopenic purpura. Moreover, some side effects associated with RhoGAM injection has been reported, including acute intravascular haemolysis and hepatic complications. However, the results of the investigations in patients regarding haemoglobin before and after treatment, and the hepatic function panel showed no side effects after the administration of RhoGAM. Today, with all the medical advancements, there is still a serious disagreement on the best treatment method for idiopathic thrombocytopenic purpura [4-7]. In acute idiopathic thrombocytopenic purpura, splenectomy is considered only in cases of life-threatening bleeding. The risks of splenectomy, including surgery and sepsis caused by encapsulated bacteria such as pneumococcus, are always assessed in comparison with severe bleeding [6-8]. Various investigations have been carried out on the therapeutic effects and side effects of each of the treatment methods and the most common surgical procedures. In other words, the treatment of idiopathic thrombocytopenic purpura is very complicated and requires great precision. Furthermore, the treatment strategy requires familiarity with clinical symptoms and treatment-associated side effects, as well as with the severity of the disease and its prognosis based on the accredited clinical classification. It seems that morbidity and high cost of treatment impose a significant burden on the individual and on the healthcare systems [7-9]. On the other hand, because of the nature and complications of the disease and current treatments, more effective and less ex-
Pensive therapies are required. Considering the high cost of treatment, repeated hospitalizations, and serious complications of medications, different methods have been used to treat this disease around the world and new therapies are being explored. This article can also be assessed in this regard. The patient, in this report, had idiopathic thrombocytopenic purpura that did not respond to common treatments. Today, all the treatments which are used for idiopathic thrombocytopenic purpura have relative therapeutic effects. Hence, in this case, we attempted to integrate modern and traditional medicine doctrine, the so-called Iranian effective medicine, and to present the most effective methods with the least possible side effects for the treatment of the patient, and to report it scientifically.

From the perspective of Iranian effective medicine, there are a few important points for the treatment of patients with idiopathic thrombocytopenic purpura: A) In these patients, the physician does not commonly encounter what is referred to as the imbalances temperament in traditional medicine. But simple adjustment of the temperament can help in treating this disease. B) The patient’s history based on the Iranian effective medicine method is vital and personalized. So physicians should utilize both modern and traditional medicine in taking down a patient’s history. C) The most important part of treatment of these patients is monitoring and follow-up of platelet count during treatment. If physicians encounter very sharp drop in the patient’s platelet level during treatment, the patient’s corticosteroid consumption should be discontinued during therapy. The patients with idiopathic thrombocytopenic purpura referred to the Hajj Taleb modern and traditional medicine centre are divided into several groups as follows: 1) Patients who were initially diagnosed and have used no drugs or treatment methods. 2) Patients who have used some therapeutic methods and modern medications, in particular corticosteroids, for a short period of time. 3) Patients who have used some therapeutic methods and modern medications for a long period of time, and not only have not been cured but also are suffering from the side effects of medications like corticosteroids (diabetes is one of these complications). 4) Patients who have been referred to the centre after splenectomy. 6) Children with balanced temperament who are diagnosed with idiopathic thrombocytopenic purpura. 7) Patients who are suffering from a sharp drop in platelets level, that is, those with platelet count below 5,000. Also, the treatment of idiopathic thrombocytopenic purpura is very different in women and men. Therefore, the treatment of idiopathic thrombocytopenic purpura, on the basis of Iranian effective medicine, is completely different for each of these groups.

In this patient, the principles of nutrition and specific instructions with respect to the six essential principles of Iranian effective medicine were followed. In Iranian effective medicine, dietary instruction is based on the temperament, but it also pays attention to the effective ingredients of food that are recommended by modern medicine. Therefore, the nutrition instruction encompasses food with ingredients that strengthen the body. This kind of nutrition practice that considers both the temperament (traditional medicine) and active ingredients of foods (modern medicine) is called for in Iranian effective medicine. In other words, if only food temperament is considered in these patients and its active ingredient is overlooked or vice versa, the treatment yields no result. The patient was advised to avoid foods that contain additives. Several studies have shown that lifestyle modification towards a healthy lifestyle, including the use of healthy foods, appropriate nutrition, regular exercise, not smoking, and living with good mental health can improve health indices in a patient, and can significantly decrease the risk factors and complications associated
with the disease [10-13]. The pharmaceutical measures in this case were according to the patient’s temperament and her monthly menstrual bleeding; therefore, herbal medicine and combination drugs including decoction of chamomile, thyme, mallow, marigold, chamomile and marshmallow and thyme and sumac, along with sekanjabin, figs, and sesame seeds, were used. A decoction of chamomile, thyme, mallow, marigold was used for their anti-inflammatory properties, their role in strengthening the physical power, and for their ability to ripen the black bile humour (cold and dry). The use of corticosteroids and poor mental condition of the patient had caused the accumulation of black bile in the patient’s body. In order to prevent severe bleeding during menstruation, the plants with hot temperament were temporarily removed from the instruction. In addition, sumac, along with chamomile, mallow and thyme, was used to reduce the bleeding. Sumac is one of the most innocuous herbs. It has an effective role in this case because the other herbs used with sumac preserved their reviving and anti-inflammatory properties. Sekanjabin is a traditional Iranian drink, and one of the best medications for balancing the temperament and improving the immune system. One of the benefits of sekanjabin is expelling the black bile from the body. It was very helpful for the patient, it improved the appetite, digestion, and bowel movement. Fig, in Iranian traditional medicine, is known for its role in haematopoiesis. Besides, in herbal medicine books, fig is used as a treatment for anaemia. This valuable fruit, based on our experiences, improves the platelet level, physical strength, and immune system in patients. Sesame seeds are one of the best seeds for the body; it can help haematopoiesis and strengthens the body. Sesame is very useful and effective in the treatment of thrombocytopenia. In this patient, concurrent with the initial consumption of herbal medicines, corticosteroids consumption was also gradually reduced, but the pace of reduction was far slower than what is recommended in the text books and eventually, at the end of treatment, corticosteroid was interrupted. In order to avoid a sharp drop in platelets level after corticosteroid interruption, the patient underwent regular clinical examination and full blood count test [12, 13].

Cupping is one of the methods of traditional medicine that, depending on the age and temperaments of the patients, and the type of disease, can help treat most diseases. One of the very valuable functions of cupping is to help treat patients with blood diseases, especially in patients who have physical weakness. Cupping in these patients, in addition to the impact on the acupuncture points that is accepted all over the world, can ripen and expel the corrupt humours, can increase physical strength, and blood flow. But the cupping method, its duration, and the time of cupping are very important, and in this case we had to change it. The cupping, in addition to building the physical strength of the patient, can increase haematopoiesis in bone marrow and hence, improve platelet production. The treatment of idiopathic thrombocytopenic purpura in effective medicine is one of the most exclusive methods among traditional medicines across the world, actually, there is no such treatment method for this patient in traditional medicine, as exists in effective medicine. The drugs and methods used are quite specialized in effective medicine, because new findings in this case have been achieved during many years of experience and treatment. There is no definition of thrombocytopenia in traditional medicine text books in various traditional doctrines, and the best definition is available in the physiopathology of modern medicine. In this patient, cupping was very important, sensitive, and required careful attention. Hence, for blood-letting in this patient, the following factors were considered: first, the patient had low level of
platelet and general weakness, therefore the blood-letting in this case was mainly for stimulation and not for taking the blood from the patient. Second, blood-letting was performed by a few superficial scratches, and about one to two millilitre blood was taken. The blood-letting procedure was performed by an experienced physician as it was sensitive, and required careful attention in primary cupping step, and also in scratching (cutting) and taking the blood. In general, regarding the blood-letting in patients with idiopathic thrombocytopenic purpura, we based our course of treatment on previous experiences. Taken together, given the development of medicine over the last century, it can be said that in the world of medicine none of the therapeutic doctrines are perfect. Hence, the medical doctrines such as modern medicine, traditional medicine, Ayurveda in India, traditional Chinese medicine etc., each aims to protect human health. That is the real purpose of medicine, and yet each of these has many strengths and weaknesses, and none are comprehensive.

Conclusion

Iranian effective medicine, as a combination of the knowledge of two therapeutic doctrines of modern and traditional medicine, can present effective clinical findings in treating certain diseases such as idiopathic thrombocytopenic purpura. The treatment of idiopathic thrombocytopenic purpura, using the methods of effective medicine involves lower costs and reduces the risks of splenectomy. According to the recovery process in this patient, and considering the absence of ecchymosis symptoms and normal level of platelet in her paraclinical tests, it seems that the combination of modern medicine and traditional medicine opens the door to treating many common diseases. Therefore, further assessments and studies on various diseases based on the teachings of the Iranian effective medicine seem necessary.

List of Abbreviations

IEM: Iranian Effective Medicine
CM: Centimetre
KG: Kilogram
MG: Milligram
FSB: Fasting Sugar Blood
C: Centigrade
MMHG: Millimetres of Mercury
CD: Compact Disk
%: Percentage

Conflict of Interests

The authors have no conflict of interest in the publication of this article.

Contributing Authors

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delphia 2004.


