

AYURVEDIC MANAGEMENT OF IDIOPATHIC THROMBOCYTOPENIC PURPURA W.S.R TO RAKTAPITTA – A SINGLE CASE STUDY

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Article Received on
20 March 2024,

Revised on 10 April 2024,
Accepted on 30 April 2024

DOI: 10.20959/wjpr20249-32267



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ABSTRACT

This case study explores the *Ayurvedic* management of Idiopathic thrombocytopenic purpura (ITP) with focus on the concept of *raktapitta*. The patient, diagnosed with ITP-understood as *tiryak raktapitta*, underwent a personalized *Ayurvedic* treatment protocol, incorporating herbo-mineral formulations like *yakruta yoga*, *vasadi kwatha*, dietary modifications, and lifestyle interventions. The study observes changes in platelet counts, symptom alleviation, and overall well-being of patient over a specified duration. Results suggest the potential efficacy of *Ayurveda* in managing ITP through the lense of *raktapitta*, encouraging use of *Ayurvedic* medicines in idiopathic thrombocytopenic purpura (ITP). The management of chronic ITP with *Ayurvedic* treatment appears promising, offering hope to community of patients suffering from severe thrombocytopenia. which can only be accomplished by using the results of current case studies for clinical trials and for a bigger sample size.

KEYWORDS: Idiopathic thrombocytopenia purpura, ITP, *Raktapitta*, *Ayurvedic* medicine.

INTRODUCTION

Idiopathic thrombocytopenic purpura (ITP).^[1] is a medical condition which is characterized by immunological destruction of platelets and normal or increased

megakaryocytes in the bone marrow. The cause of ITP is unknown (Idiopathic) and involves Immune system dysfunction leading to platelet destruction (ITP).

Pathogenesis

Based on duration of illness it is of two types Acute and chronic ITP.

Acute ITP

When a child recovers from an upper respiratory sickness or a viral disease (viral hepatitis, infectious mononucleosis, CMV infection, etc.), this disorder is most commonly observed. Acute ITP has a rapid onset and severe thrombocytopenia, but recovery takes place within few weeks to months.

The mechanism of acute ITP is by formation of immune complexes containing viral antigens, and by formation of antibodies against viral antigens which cross react with platelets and lead to their immunologic destruction.

Chronic ITP

Chronic ITP is more common in adulthood, especially in women who are of fertile age (20–40 years old). For numerous years, the disease slowly worsens and develops. The pathogenesis of chronic ITP is explained by formation of anti-platelet autoantibodies, usually by platelet-associated IgG humoral antibodies synthesized mainly in the spleen. These antibodies are directed against target antigens on the platelet glycoproteins, Gp IIb/IIIa and Gp Ib-IX complex. Some of the antibodies directed against platelet surface also interfere in their function. The mechanism of platelet destruction is similar to that seen in autoimmune haemolytic anaemias. Sensitised platelets are destroyed mainly in the spleen and rendered susceptible to phagocytosis by cells of the reticuloendothelial system.

Clinical features of ITP

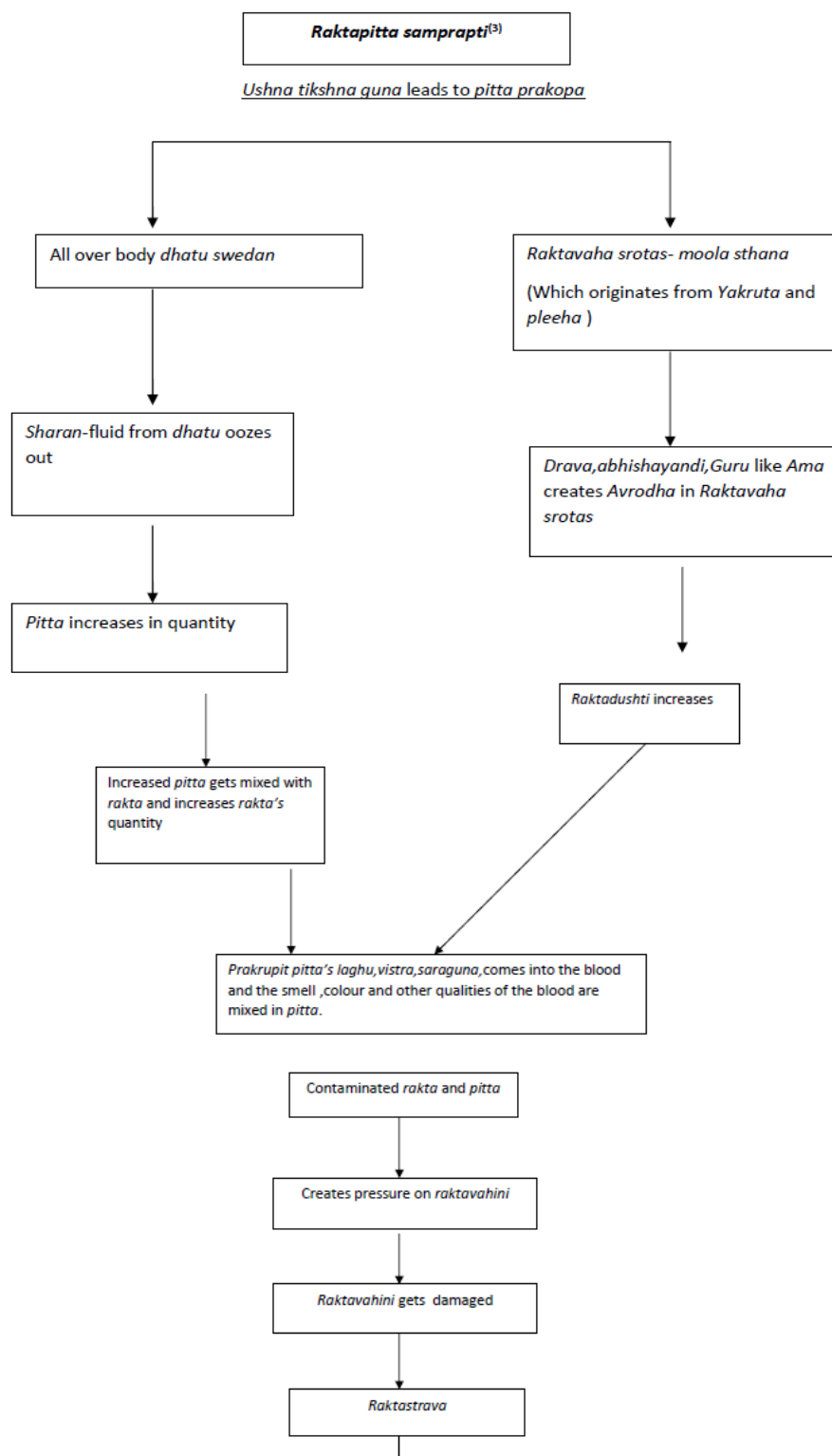
The usual manifestation includes A low platelet count leading to bleeding tendencies i.e. easy bruising, petechial hemorrhages, mucosal bleeding such as menorrhagia in woman, nasal bleeding, bleeding gums, melena and hematuria. Splenomegaly and hepatomegaly seen in chronic ITP.

***Raktapitta*^[2]**

As per *acharya Charaka* All types of bleeding disorders -internal or external are acute and serious disorders and if not treated properly, spread in the body like fire. Aggravated

Pitta itself is called *Raktapitta* in this disease, when it gets combined with vitiated *Rakta* it gets similar colour and smell of *Rakta*. From an Ayurvedic perspective, *Raktapitta* and ITP are connected since they both deal with blood-related problems, which is briefly discussed here.

Samprapti of Raktapitta correlating pathogenesis of ITP



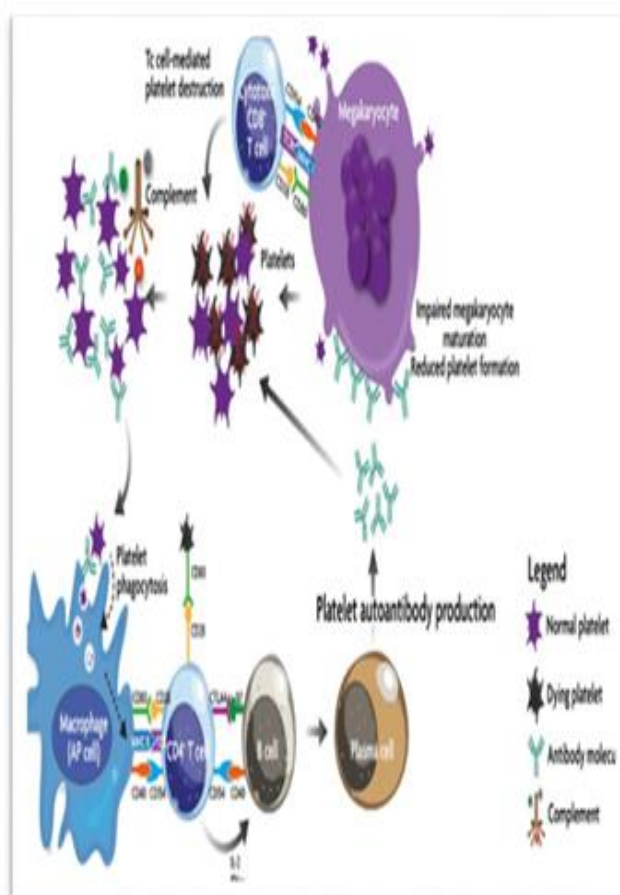
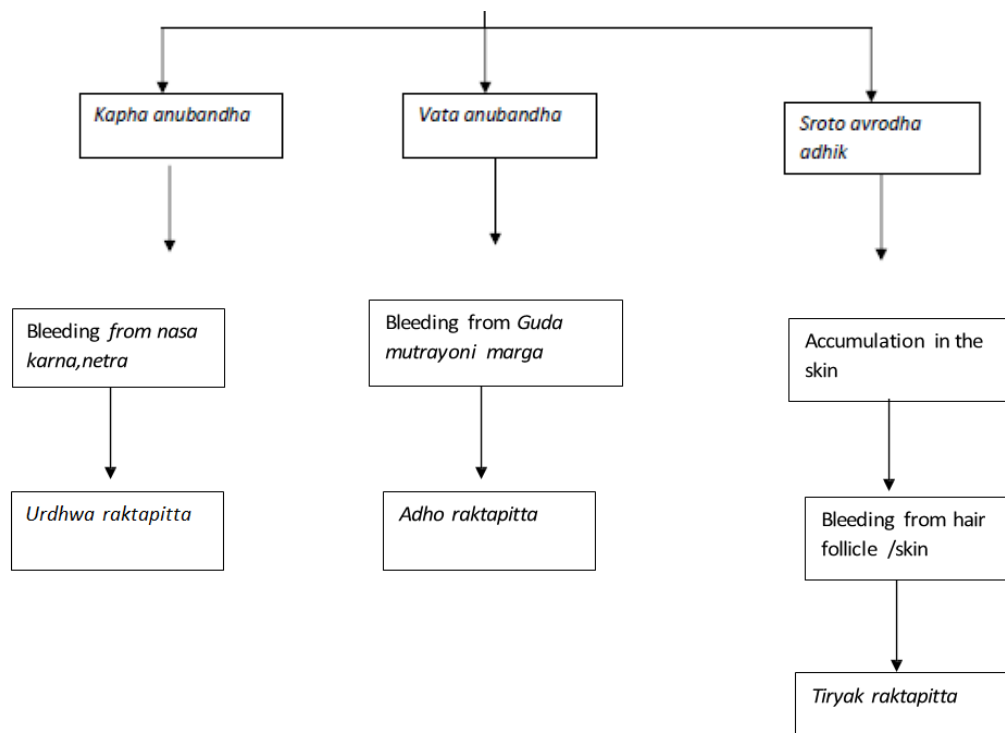


Diagram showing Pathogenesis of ITP

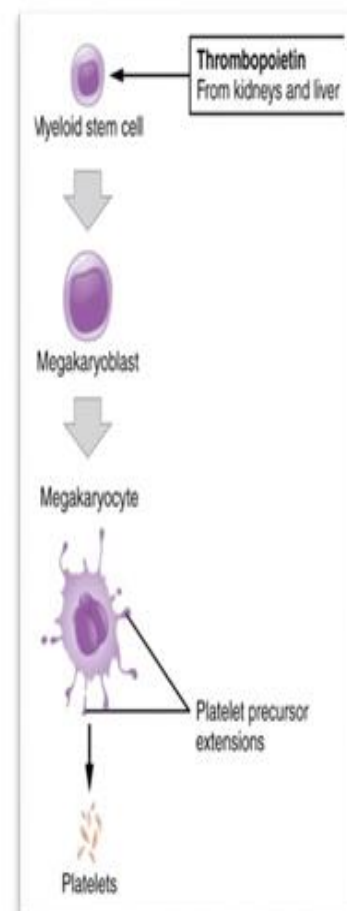


Diagram showing the development of platelet

Detailed description of above flowchart and diagram

By the above said *nidan* as mentioned in flow chart, *pitta dosha* gets Aggravate, leaves its site and reaches *rakta dhatu* (blood). Being a *mala* (waste product) of *rakta dhatu*, the *pitta dosha* on getting mixed with *rakta dhatu* increases its quantity. The *pitta dosha* in turn Vitiates the *rakta*.

Due to the *ushnatva* of *pitta*, the *Drava bhava* of other *dhatu*s (the liquid portion) like *Mamsa* (muscles), *meda* (fat) etc. Oozes out of their Respective tissues and gets mixed with *rakta dhatu*. So this further enhances the quantity of blood flowing in the blood vessels creating immense pressure. Due To the pressure of the blood and *ushnatva* of *pitta*, The walls of the blood vessels get damaged and the Blood starts flowing through various openings of the Body like mouth, nose, ears, skin, anus, penis and Vagina. This bleeding is called *Raktapitta*. Here the vitiated *pitta* can be correlated With antibodies related to the thrombocytes. Which is Responsible for the destruction of the platelets in the Body leading to hemorrhagic diathesis. In ITP the Antibodies against platelets are produced in the Spleen and the sequestration of platelets also occurs at same place.

According to *Ayurvedic* principle, *yakrut* and *Pleeha* are considered as the *moolasthan* of *raktavaha Strotas*.^[4] as it is considered as the *roga sthana*. Simialr manifestation is seen in ITP ie splenomegaly and hepatomegaly. Even the involvement of other strotas like *mamsavaha*, *medovaha*, *asthivaha* and *majjavaha* which can be correlated with disease manifestation. Like *mamsavaha strotas* is *moolasthan* of *twacha* (skin) which depict the symptoms of ecchymosis. *Medavaha strotas moolsthana* of *vrukka* can be considered as hepatomegaly/Splenomegaly as seen in ITP. *Asthivaha strotas moolasthan* of *meda* and *jagan* which can be correlated with the discoloration on lower extremity, *Majjavaha strotas moolasthan* of *asthi* and *sandhi*. Here *asthi* can be related to bonemarrow where production of megakarocytes takes place.

According to the *dosha* involvement *Raktapitta* can be is classified into three types as per its direction.^[5]

Urdhwa

In this condition vitiated blood bleeds from upward orifices such as *karna*, *mukha*, *nasa*, *akshi* due to the *kapha anubandha*.

Adhoga

In this condition vitiated blood bleeds from downward orifices such as *yoni*, *guda*, *mutra marga* due to the *vata anubandha*.

Tiryak

In this condition the manifestation is subcutaneous due to involvement of all *doshas* (all vitiated doshas circulating in the blood stream).

Tiryak Raktapitta.^[6] specifically can be correlated with ITP due to similar manifestation of disease.

Case presentation

In Opd, a female patient, age 26, was seen.

The patient complained of low platelet count, bleeding gums, and ecchymosis on the upper and lower extremities all of which are symptoms of ITP.

History present illness

The patient seemed to be fine before. She revealed history of having jaundice at the age of 17, for which she received treatment. Following a 15-day viral infection, she began to experience bleeding gums which prompted an investigation. A low platelet count was discovered, and she was admitted to the hospital. Platelet transfusion and other required care was provided during the stay.

She had been receiving conservative alternative treatment for her recurrent low platelet count for seven years, but no change in her symptoms was observed. She saw a hematologist, who recommended a large dose of steroids, which caused her to gain weight and experience anxiety, exhaustion, mood swings, and insomnia.

Her illness deteriorated during the six months being on steroids, with no noticeable improvement.

She saw an *Ayurvedic* physician for guidance after being advised to have a splenectomy because she was not reacting well to steroids. She took the recommended medication for a few weeks until she felt better, at which point she decided to continue. Since then, she has been using *Ayurvedic* medications, which have helped her symptoms and even

brought her platelet count back to normal.

After experiencing one episode of severe hemorrhage on January 17, 2016, due to an ectopic pregnancy, her platelet count decreased while undergoing *Ayurvedic* treatment. The procedure was performed on her as well. She resumed her treatment after she recovered, and her platelet count increased as a result. *Ayurvedic* medicines helped her get pregnant through IVF and alleviated her ailments.

Past history

H/o Jaundice at 17year of age.

Menstrual history

28days/4days regular/heavy bleeding.

Menarch

at 13years of age.

Obstetric history

5year male child (IVF-pregnancy)

Marriage

at 23years of age.

Surgical history

ectopic pregnancy @ 17-01-2016.

RESULT

Table showing investigation during the treatment

Sr.no	Investigation	Before treatment (23-08-12)	3month (20-11-12)	6month (06-02-13)	10month (12-06-13)
1.	Platelet count	0.133/mm ³	0.52/mm ³	0.94/mm ³	1.34/mm ³

Sr.no	Investigation	1.2year (15-09-13)	1.5year (22-12-13)	2year (02-04-14)	2.5year (16-07-14)
2.	Platelet count	1.16/mm ³	1.40/mm ³	1.62/mm ³	1.36/mm ³

Sr.no	Investigation	2.8year (19-10-14)	3.3year (05-04-15)	3.9year (11-10-15)	4year (17-01-16)	4.3year (29-05-16)	4.10year (28-12-16)
3.	Platelet count	1.61/mm ³	1.68/mm ³	0.22k/mm ³	0.20/mm ³	1lac/mm ³	1.98/mm ³

Table showing the formulation used during the course of treatment.

Sr.no	Formulation	Dose	Dose	Duration
1.	<i>Chandrakala rasa</i> . ^[7]	125mg	2-0-2	Throughout the treatment
2.	<i>Navyasa loha</i> . ^[8]	125mg	2-0-2	Throughout the treatment
3.	<i>Arogyavardhini vati</i> . ^[9]	250mg	2-0-2	Throughout the treatment
4.	<i>Dadimadi ghrita</i> . ^[10]	5ml empty stomach	1-0-0	Throughout the treatment
5.	<i>Vasa+guduchi+triphala+kutki+nimbaptra+hinga kwatha</i>	10ml	1-0-1	Throughout the treatment
6.	<i>Yakrut yoga</i> 3gm+bilwapatra500mg+amalaka 500mg+pravalpishti 30mg+Suvarna malini vasant 60mg+abhrak bhasma. ^[11] 60mg +makshik bhasma. ^[12] 60mg	-	1-0-0	Throughout the treatment
7.	<i>Adulsa Ghana</i> . ^[14]	-	2-0-2	Throughout the treatment
8.	<i>Vasadi kwatha</i> . ^[14]	10ml	1-0-1	Throughout the treatment
9.	<i>Suvarna sutshekhara rasa</i> . ^[15]	-	1-0-0	42days
10.	<i>Tab gandharva haritaki churna</i> . ^[16]	-	0-0-2	Throughout the treatment

DISCUSSION

In this study the following formulation has been used

1. *Chandrakala Rasa* is one of the important *rasayana*. The main ingredients includes, *kajjali*, *tamra*, *abhrak bhasma* and herbal *dravyas* which are mostly of *sheeta virya*. *Chandrakala Rasa* balances *pitta- vata dosha*, mainly *pitta dosha* when it get alleviated by *ushna-tikshna guna*. As per ingredients, it has *rasayana*, *yogavahi*, *deepan*, *pachan*, *raktaspittahara*, *mutrala*, *dahashamana*, *raktavardhak* properties. This is primarily used for treatment of bleeding disorder, urinary tract infection, mental disorder, diabetes, diabetic neuropathy.
2. *Navyas loha* is a herbo-mineral formulation in ratio of 1:1 which is good hemetonic agent and will help in increases Hb and overall blood component.
3. *Arogyavardhini vati* is very good for digestion, as *agnimandya* is the root cause of any disease manifestation (Ayurvedic principle) Hence it is used in the treatment for dealing with digestive disorders and for good metabolism.

4. *Dadimadi ghrita* a *ghrita* based is used in treatment as it has benefits like *deepan*, *hrudroga*, *pandu*, *anemia*, *pleeha vruddhi*, *shawas*, *kasa* and *mudhavata*, which will help in curing the symptoms.
5. The use of *Abhrak bhasma*, *suvarnamakshik* is too done in treating as it has properties like *Rasayan*, helps in metabolic enhancement, strengthening tissues, anti-inflammatory, immunomodulatory effect and detoxification.
6. *Adulsa Ghana* is used as *adulsa* has properties like Immunomodulatory effect, *Rasayan*, *deepan*, *balya* and *tri dohsahara*.
7. *Vasadi kwatha* exerts hepato-cellular regeneration, cholegogue and choleretic activity, membrane stabilizing effect, antioxidant effect, molecular nutrient effect and metabolic corrections. It helps in clearing the symptoms and elevated LFTs thereby restoring the functional status of liver.
8. The use of *suvarna* in this treatment is done too as *Suvarnasutshekhar Rasa* is a classical *Ayurvedic* formulation. It typically contains gold (*Sudhha Suvarna*), mercury (*Sudhha Parada*), sulfur (*Sudhha Gandhaka*), and other herbal ingredients. Its primary uses include managing disorders related to the nervous system, respiratory system, and digestive system. It's crucial to note that the use of *Suvarnasutshekhar Rasa* should be done under the guidance over a period of **42days** only.
9. *Gandharva Haritaki* tabs is also used as It is one of the important ingredient of medicines which are used to treat abdominal gas, constipation, diarrhea, dysentery, cyst, digestive disorders, vomiting, enlarged the liver and spleen, cough and bronchial asthma, and for metabolic harmony.

CONCLUSION

There has been an overall improvement in the patient's symptoms and indicators. The platelet count increases noticeably upon therapy completion. Her *Ayurvedic* drugs helped her conceive through IVF and alleviated her issues. This case study clarifies how *ayurveda* reduces the danger of surgery, which aids in the effective management of chronic illness. Here, the *Apunarbhava Chikitsa's Ayurvedic* purpose is also successfully attained.

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