

# Management of Idiopathic Thrombocytopenia with Ayurvedic Modalities- Case Study

1<sup>st</sup> Author

1)Dr. Nandadeep Vijay Chodankar  
Assistant Professor in Kayachikitsa At RJVS BSAM,  
Sawantwadi

2<sup>nd</sup> Author

Dr. RajeshKumar Mishra  
Associate Professor in RJVS BSAM, Sawantwadi

3<sup>rd</sup> Author

Muskan Rahim Shaikh  
Intern Doctor at R.J.V.S. Hospital Sawantwadi.

4<sup>th</sup> Author

Harshadip Kondiram Survase  
Intern Doctor at R.J.V.S. Hospital Sawantwadi.

**Abstract:-** Ayurveda has developed a lot from the clinical observation over several centuries and medicine was tried directly on human. The ultimate aim of any researcher of medical science is appropriate management of particular disease and promoting healthy living. The clinical therapeutically trials are of paramount importance in the context of ayurveda. *Stithi-Utupatti-Laya* is the basic and fundamental laws of universe. In series of these changes, newer diseases stand in front of all of us. Almighty, though about challenging changes as painful as Idiopathic Thrombocytopenia towards the whole word. Population based studies have shown that ITP has incidence of upto 6K per 100000 children and 3.3 per 100000 adults per year.<sup>1</sup> It is heamatogenic disease without a clinically apparent cause. In ITP there may be severe bleeding due to thrombocytopenia, considering side effect of steroid and complications in platelet transfusion, we advised *Shaman* line of management with *Ajaraktbasti* which proves to be best to conquer platelet count of patients and improved health and quality of life.

**Keywords:-** Idiopathic Thrombocytopenia, Tiryagatrakpitta, Ajaraktabasti, Shaman Aushadhi.

## I. INTRODUCTION

Autoimmune thrombocytopenia, also known as idiopathic thrombocytopenia purpura (ITP) or werlhof's disease, is an autoimmune mediated disorder distinguished by a temporary or continuous decline of platelet count to less than 100,000 /uL. When it occurs for less than 12 months but more than 3 months and is termed as persistent ITP. Chronic ITP is explained as existence of ITP for more than 12 months but more than 3 months and is termed as persistent ITP.<sup>2</sup> Population based studies have shown that ITP has incidence of up to 6.4 per 100000 children and 3.3 per 100000 adults per year.<sup>3</sup> It is heamatogenic disorder, characterised by isolated thrombocytopenia without a clinically apparent cause. Platelets or thrombocytes are small, colourless cell fragment in our blood that form clots and stop or prevent bleeding. Platelets are made in our bone marrow, the sponge like tissue inside our bones. Bone marrow contains stem cells that develop into red blood cell, white blood cell and platelets.<sup>3</sup>

The theories regarding *Rakta Dhatu* formation appears to have changes from time to time as is evident from studies of Ayurvedic classics. In *Charaka Samhita*, it is clearly mentioned that *Rakta* is formed by the *Ushma* of *Pitta* which renders the *Rasa* into a coloured state.

शोणितस्यस्थानंयकृतप्लिहानौ । सु.सु. 21/160

*Sushruta* wrote the *Rakta* is formed in *Yakrita* and *Pleeha* with the help of *Ranjakagni*.<sup>4</sup> Another reference of site of *Rakta* formation is available in *Sushruta Sharir* 4/13<sup>5</sup>

स्थुलास्थिषुविशेषेनमज्जात्वभ्यन्तराश्रितः।  
अथेतरेषुसर्वेषुसरक्तममेदुच्यते ॥

This shows that there is some relation of *Rakta* with the *Majja* part of the bones also.

*Acharya Sushruta* has described that inside the spaces of long bones the *Majja* is present, but in short bone *Saraktayameda* is present. In adult life fat is stored inside the space of long bones named as *Majja* and from modern view it is called yellow bone marrow. Inside the short bone *Saraktameda* is present proving that when the network of blood capillaries is abundant, it is named as red bone marrow. According to the modern physiology, bone marrow is considered the main site for formation of platelet, considering platelets as components of blood and comparing blood to *Rakta dhatu* because of its formation from all above references. *Acharya* mentioned that *Rakta* is origin of body, maintains its vitality and life and should be preserved with greatest care. Its special property that it gives *Prana* to body seems to be holding whole importance. *Acharya Charaka* as mentioned that *Rakta* is site of *Prana* among the 10 *Pranaayans*.

So ITP can be correlated with “*Tiryagatrakpitta*” due its cardinal feature of petechia purpura. *Vagbhata* mentioned<sup>6</sup>

उर्ध्वनासाक्षिकर्णास्येमेड्रयोनिगुदेरधः।  
कुपीतरोमकुपैश्रचसमस्तेस्तइप्रवर्तते ॥ वा.नि.3/7

According to the modern science treatment for ITP with severe platelets drop is platelets transfusion. *Maharshi Charaka* as mentioned *Raktabasti* treatment in severe blood loss <sup>7</sup>

पिबेतज्जीवाभीसंधानंजीवंताधाशुगच्छती ।  
तदैवदर्भमृदीतरंक्तबस्तीप्रदापयेत ॥ च.चि.6/83

Oral use of *Ajaraktabasti* is not practical, patient find it uncomfortable, *Basti* is very effective treatment in Ayurveda. Practically it is acceptable because of anorectal route of *Ajarakta* doesn't mixed with human body directly so it is free of risk and complications so we decided to give *Ajaraktabasti* to the patient of Idiopathic thrombocytopenia.

## II. MATERIAL & METHODS

A known case of ITP was taken from OPD, detail history of the patient was taken. Complete examination & Investigation was done. Ayurvedic treatment was given along with panchkarma therapy.

Take fresh *AjaRakta* and add *Madhu* to it, add 1/2 tsp of *Guduchi* & *Amalki* to collect *Ajarakta*, by using special blood transfusion set & rubber catheter of size of No.10, administer *Raktabasti* to the patient.

## III. CASE HISTORY

A 22 year old male patient, Presented to the OPD of *kaychikitsa* department in RJVS Hospital Sawantwadi complaining of subcutaneous haemorrhage, recurrent ecchymosis, weakness. with the H/O Fever & decreased platelet count. His Bone marrow report showed Normo cellular trilineage hematopoiesis with monocytes, megakaryocytes - adequate & diagnosed with ITP. Before attending the opd of RJVS, he consulted to haematologist and was taking steroid for 1 year, which was showing only symptomatic effect Patient was not willing to take steroid and visited this hospital for further Ayurvedic treatment.

### ➤ History of Past Illness :-

- Fever with chills and decreased platelet count since 1 yr. ago
- Febrile convulsions – 4-5<sup>th</sup> years of age

### ➤ Family History :-

No any family history was present regarding ITP

### ➤ Marital History :- No consanguineous marriage

### ➤ History of Blood Transfusion

Received 4 points of platelets at parulekar hospital, kolhapur on 1/08/2020

### ➤ Chief Complaints :-

- Subcutaneous haemorrhage (purpura) recurrent ecchymosis
- Weakness

### ➤ History Of Past Medicine

- Tab omnacortil 10mg OD for 1month ( Prednisolone)
- Inj mepresso 1gm IV OD for 10 days ( methyl prednisolone)
- Tab Fol 5mg BD for 3 months (Folic acid)
- Tab vozet 5mg HS (Levocetizine)

### ➤ Personal History

- General condition –good
- Agni – vishamaagni
- Mala/ bowel habit- prakrut
- Mutra/ bladder habit – prakrut
- Temperature- Afebrile
- Blood pressure- 110/70 mm of hg
- Pulse rate - 80/min

### ➤ Systemic Examination

- RS –AEBE clear
- CVS - S1 S2 normal
- CNS – NAD
- P/A – No splenomegaly, no hepatomegaly

### ➤ Local Examination

- Patch



Fig 1:- Patch

### ➤ Purpura

Red or Brown spot on skin appeared on right forearm just below cubital fossa

- Size-4cm
- No blanching
- Colour- red, purple on lighter skin.
- Non palpable.

### ➤ Investigation

- CBC :-

DATE	HB	TLC	PLATELETES
07/10/2019	11.0gm%	2300 cells/mm <sup>3</sup>	28000 /mcl
08/10/2019	11.0 gm%	2500 cells/mm <sup>3</sup>	14000 /mcl
13/10/2019	14.0 gm%	2800 cells/mm <sup>3</sup>	6000 /mcl

Table 1:- CBC

●Bone Marrow Study :-

Site- Posterior superior iliac spine myelogram.

Result- Normo cellular marrow with trilineage hematopoiesis with monocytosis

-megakaryocytes adequate

-Lymphocytes mature and have normal morphology.

●Coagulation test show :- Normal results

●Serum ferritin:- 206.0 ng/ml.

#### IV. DIAGNOSIS

By taking complete medical history and performed a physical examination all investigations were excluded with careful review of past medication done. Showing no possible cause of bleeding (purpura) and a low platelet count. A diagnosis of idiopathic thrombocytopenic Purpura was reached based on clinical, bone marrow examination and other investigation findings of patient.

➤ Treatment:-

In various blood loss conditions like *Raktapitta*, *Raktatisar*, *pandu* and *jivadan O.rakta* is only treatment. *Maharshi charka* also explained that *Rakta* is giving *bal*, *varna*, *Ayush*, *Sukh* etc (*Ch.su.24/4*). The therapeutic use of different type of animal blood like *Mrug*, *Gov*, *Mahish* and *Aja* are described in *Charaka Samhita Siddhi Sthana chapter 6/82,83*<sup>7</sup>

Here, we used *Aja Rakta* (Goat blood). Goat is healthiest animal on earth. No other infections or viruses are detected in the goat blood. So it is very safe for using human body. Goat blood is also available freely and in required quantity from slaughter house.

➤ Selection Of Drug And Dosages

It is very important that drug dose and method of administration must acceptable and convenient. Those should be harmless and should not produce any complication. For this we decided to use goat blood in 100 ml dose by anorectal route. Basti harmless and painless procedure.

#### V. OBSERVATION AND RESULT

Raktabasti	Date	Basti Deyak Kaal	Basti Nirgaman Kaal	Basti Dharan Kaal	Platelet Before Administration of Basti	Platelet After Administration of Basti
1 <sup>st</sup>	28/11/2020	10:45am	11:10am	45 min	23000 cells/mm <sup>3</sup>	29000 cells/mm <sup>3</sup> (03/12/2020)
2 <sup>nd</sup>	08/12/2022	09:50am	10:20am	30 min	16000 cells/mm <sup>3</sup>	52000 cells/mm <sup>3</sup> (11/12/2022)
3 <sup>rd</sup>	14/12/2020	09:55am	10:30am	35 min	24000 cells/mm <sup>3</sup>	32000cells/mm <sup>3</sup> (18/12/2022)

Within 3 *AjaRakta Basti* Platelet count increased as compared to Platelet count before administration of *Raktabasti* but it was observed that platelet count drops after some days which eventually got within normal range after 4th *Aja Raktabasti* & with oral administration of medicine.

➤ Collection Of Aja Rakta:-

*Aja Rakta* was collected from slaughter house of Sawantwadi. No specific blood collection method is described in Ayurveda. So we collected blood after physical check up blood was mixed at time of collection with *Madhu*. Blood was free from HIV antigen.

➤ Rakta Basti Procedure :-

In the collected blood *Guduchi* ½ tsp and *Amalki* ½ tsp were added. *Aja Rakta* was filled up in well sterilised glass bottle. A special blood transfusion set made from suction tube was attached with the bottle. End of the set was attached with a catheter of no.10 size. Patient with prior *Shuddhi* with *Avipattikar churn* 1 tsp HS given 1 day before administration of *Raktabasti*.

●Posture :- Patient advice to lay down in left lateral posture. Total 100 ml blood was administered. After *Basti* Patient was advised to lay down in same posture for 10 minutes. *Basti* Was administered weekly once for four weeks. Along with this *Shaman* line of management given.

➤ Shaman Chikitsa :-

Formulation	Dose	Time	Duratio n	Anupan
<i>Vasaguduchyad i kashay</i>	3 tsf	BD	2 months	<i>Koshnaja l</i>
<i>Dadimadi ghrut</i>	2 tsf	BD	4 months	-
<i>Sarivadyasav</i>	2 tsf	BD	4 months	<i>koshnajal</i>
<i>Raktapachak vati</i>	2 tab	TDS	2 months	<i>Jal</i>
<i>Mauktik pishti</i>	1 tab	TDS	2 months	-

Table 2:- Shaman Chikitsa

➤ Pathya – Apathya :-

Patient where advice to take *Laghu -Ushna Ahar* and avoided to take *Paryushit Ahar*. Avoiding *Ras* which causes *Raktadushti*.

#### VI. DISCUSSION

सर्वदासर्वभावनासामान्यत्ववृद्धीकारणम्. सु. 9/44<sup>8</sup>

Ayurveda *Acharyas* said that *dhatu* loss should be replaced by same *dhatu*. *Raktakshay* means blood loss should be replaced by blood. *Basti* is a safe painless procedure with

scientific value. *Pitta dosha & Rakta dhatu* have *ashryaashri* relation so considering *dusti* of *raktadhatu* we have given *pitta shaman chikitsa*.

- *Vasaguduchyadi kashay* - main content are *vasa & Guduchi* having *tiktarasa*<sup>9</sup> and *guduchi* having *madhur Vipak* which helps in *Raktaprasadhon*. *guduchi* acts on *pitta dhatu* by doing *shodhan* of *Ras raktgat vimargit pitta* because of its *tiktaras gaduchi* is best to cause astringent effect useful in *rakapitta* (bleeding disorder)
- *Raktapachak gan* are mention as *vishamjwaraghna* & also called *dhatupachak gan*, by using *dhatupachak* help in pacifying *Dosha* improves quality of *dhatuutpati* (formation)<sup>10</sup>
- *Sarivadysav* -helps in *Raktaprasadan* reduces *Raktas tikshan*, *ushan gun* pacifies *vikrut pittadosha*
- *4.MuktiPisti* helps in *Raktaprasadan*. *Madhur rasatmak Shitvirya & madhur vipak*, helps to reduces *Ushanata*, *trivrata*, *amalta* of *pitta*.

## VII. CONCLUSION

Ayurveda has potential to treat cases in its own to way. *Raktobasti* has been subjected. On patient suffering from ITP. *Ajaraktabasti* is useful in idiopathic thrombocytopenia, as *basti* is painless and non-invasive procedure as compared to blood transfusion. In patient with thrombocytopenia while doing BT, prick also causes severe bleeding so giving *Basti* is best treatment.

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