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Ayurvedic management of Immune Thrombocytopenic Purpura (ITP) in Pregnancy

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ABSTRACT

Immune thrombocytopenic purpura (ITP) is an autoimmune disorder characterized by a low platelet count and mucocutaneous bleeding. Its highest frequency is in young women of reproductive age and it also occurs in 0.83 of 10,000 pregnancies. Pregnancy does not increase the incidence of ITP nor does it exacerbate a pre-existing disease. Sometimes platelet autoantibodies facilitate increased platelet destruction by the reticuloendothelial system especially the spleen and also these autoantibodies (IgG) can cross the placenta and place the foetus at risk for thrombocytopenia and may cause bleeding problems such as intracranial haemorrhage. Although some pregnant women with ITP may experience several maternal and foetal complications, in most cases even with a very low platelet count, there is neither maternal nor foetal morbidity or mortality. Corticosteroids are the first line of therapy in pregnant women or intravenous immune globulin is commonly used in steroid resistant patients. Other treatments such as intravenously administered anti-D and splenectomy during pregnancy have been reported. In *Ayurveda*, it can be correlated to *Tiryak Rakthapitta*, which is caused due to excessive consumption of *Ushna*, *Tiktha* and *Amla Rasa*. It is *Tridoshaja Vyadhi* and its manifestation will be subcutaneous bleeding. Since *Apathya Ahara* is also cause of any disease, *Ayurveda* highlights on diet and lifestyle changes along with *Garbhini Paricharya* to combat any such diseases seen in pregnancy. Further we can adopt *Rasayana* therapy and *Samshamani Kriya*, which are safe during pregnancy. Careful monitoring of the mother throughout pregnancy is critical to avoid risk to both the mother and neonate.

Key words: ITP, Tiryakgata Rakthapitta, Autoantibodies, Samshamani Kriya.

INTRODUCTION

Immune thrombocytopenic purpura (ITP) is an autoimmune disorder characterized by a low platelet count and mucocutaneous bleeding. Its highest frequency is in young women of reproductive age and occurs in 0.83 of 10,000 pregnancies.^[1] In ITP, platelets are the target, they are marked as foreign by the

immune system and eliminated in the spleen and sometimes the liver. It is certainly not unusual for women who have been in clinical remission for several years to have recurrent thrombocytopenia during pregnancy. Although there is no evidence that ITP is aggravated during pregnancy but this disorder can cause increased bleeding intrapartum or post-partum. Also, platelet associated IgG antibodies cross the placenta and may cause thrombocytopenia in the foetus and neonate. Maternal platelet count cannot predict neonatal platelet count. So neonatal platelet count can be predicted through foetal scalp blood sampling during labour or by percutaneous umbilical blood sampling (PUBS). Some pregnant women with ITP may experience several maternal and foetal complications, in most cases even with a very low platelet count; there is either maternal nor foetal morbidity or mortality. In *Ayurveda*, it can be correlated to *Tiryak Rakthapitta*^[2], which is caused due to excessive consumption of *Ushna*, *Tiktha* and

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Amlarasa. It is *Tridoshaja Vyadhi* and its manifestation will be subcutaneous bleeding.

Conceptual Analysis of ITP in Ayurveda

According to *Acharya Charaka*, the excessive consumption of *Ushna, Tikshna, Katu*, and *Lavana Rasa Ahara* the *Pitta* gets vitiated, this vitiated *Pitta* associates with *Rakta* and causes *Raktapitta*. Further, if vitiated *Rakta* flows out from all orifices including *Romakupa* (hair follicles) is called as *Tiryakgata Rakthapitta*. ITP can be defined as bleeding disorder caused by an abnormal response of the immune system which leads to a decrease in platelet count and leads to excessive bleeding, purpura, and petechia. Based on this definition of ITP, it can be correlate to *Tiryakgata Rakthapitta* in *Ayurveda*.

Causes

The specific reason for ITP is not known, but the possible cause of ITP is the abnormal functioning of immune system, Infections like HIV, Hepatitis C or chicken pox may lead to severe damage of immune system, Other immune disorders like Lupus or Rheumatoid arthritis, pregnancy can alter immunity and sometimes lead to ITP and Certain conditions like Leukaemia may produce antibodies against platelets.

Symptoms

- Purpura (A bruise - blood under the skin)
- Petechia (tiny red dots under the skin that are a result of very small bleeds)
- Nose bleeding
- Bleeding of gums
- Blood strains in stool, urine and as well as vomit.
- Radiological observation of internal bleeding inside the head.

Nidana for *Raktapitta* is excessive consumption of *Ushna, Tikshna, Katu*, and *Lavana Rasa Ahara*, due to which the *Pitta* gets vitiated, this vitiated *Pitta* associates with *Rakta* and causes *Raktapitta*. Further, if vitiated *Rakta* moves in abnormal direction, then it's called as *Tiryakgata Raktapitta*.^[3]

Tiryakgata Raktapitta is the *Tridoshaja Vyadhi*, in this disease *Vata Pitta* and *Kapha* are vitiated resulting in the imbalance of the *Agni* in the *Raktha Dhatu*. This imbalance affects the immune system of the body attacking the platelets, destroying them and may be correlated to the *Pitta Dosha* imbalance with manifestations like subcutaneous bleeding.

Ayurvedic management of ITP in Garbhini

According to *Ayurveda*, a sedentary lifestyle and abnormal diet is the main cause of every disease. Hence, a focus on diet and lifestyle changes to relieve symptoms of ITP. Can be adopted *Garbhini Paricharya* along with *Pitta Shamaka, Rasayana* and *Raktha Sodhaka* drugs may be beneficial. There are also various herbs like *Guduchi, Ashwagandha, Haridra, Punarnava* etc. to regulate immune function and increase platelet count in the body.

Rasayana Therapy

Rasayana therapy helps to increase the immunity^[4] in the mother by increasing the *Bala* and *Vyadhishamatva*. Drugs like *Amalaki, Ksheera, Mamasa Rasa, Ghrita, Navanitha, Madhu, Sharkara* along with drugs mentioned in month wise regimen such as *Shalaparni, Madhuyashti, Parushaka, Gokshura, Vidarigandhadi Varga, Jeevaniya Gana Dravya* and *Madhura Gana Dravyas* like *Bala, Kharjura, Draksha, Shatavari, Jivanthi, Ashwagandha*, etc. having the *Madura Rasa, Sheeta Veerya, Madhura Vipaka*, and *Rasayana* properties.^[5,6,7] As *Rasayana* drugs boosts the immunity and prevent infections in the mother, they are also passively transferred to foetus through placenta, preventing infections and building immunity in foetus, most of these are also mentioned in *Garbhini Paricharya* of our *Acharyas*.

Samshamani Kriya

In *Charaka Samhita* 4th chapter *Raktapitta Chikithsa Adhyaya, Charaka Acharya*, mentioned *Samshamani Kriya*^[8], which is also indicated in *Garbhini*. *Samshamani Kriya* comprises of administering medicines, herbs and formulations which have disease modifying effect and are safe during pregnancy.

The formulations like *Atarushakadi Kwatha*, *Padhmakadi Kwatha*, *Bala Kwatha*, *Ushiradi Churna*, *Kiratatiktadi Churna*, *Ushiradi Peya*, *Priyangvadi Peya*, *Drakshadi Yoga*, *Vasa Ghrita*, *Sathavaryadi Ghrita*, and *Pancha Panchamula Ghrita* are mentioned in *Charaka Samhita Rakthapitta Chikithsa Adhyaya*.

The other classical medicines advised in *Rakthapitta* are *Pravala Panchamrita*, *Rakthapittantaka Lauha*, *Kamadhgha Rasa*, *Godanti Bhasma*, *Pravala Pishti*, *Usheerasava*, *Lodhrasava*, and *Pushyanuga Churna*.

Single Drugs

- *Guduchi* - It has *Rasayana*, *Sangrahi*, *Balya*, *Agnidipana*, and *Tridoshashamaka* properties. And also, pharmacological action of immunomodulation, Anticoagulant, and antineoplastic activity so it reduces the immunologic destruction of platelets and increased megakaryocytes in the bone marrow.^[9]
- *Durva* - *Durva* (extract) has action as *Rasayana* (rejuvenation), *Sangrahi* (astringent), *Balya* (increases the strength), *Agnidipana* (increases digestive fire) and *Tridoshashamaka*.^[10] *Durva* grass contains crude proteins, carbohydrates and mineral constituents, oxides of magnesium, phosphorous, calcium, sodium and potassium and vitamin c. It has property of haemostasis, refrigerance and healing so externally it is used in wounds, haemorrhages, burning sensation (like urticaria, erysipelas) and dyspigmentation of skin. Internally the plant is used in various diseases like bleeding in dysentery, piles, epistaxis, menorrhagia, diarrhoea and urinary tract infection.
- *Shatavari* - It acts as *Raktapitashamaka* because it has *Madhura*, *Tikta Rasa*, *Guru-Snighdha Guna*.^[11] It is *Rasayana*, *Balya* and *Jeevaniya*. Also contains Oligospirostanoside referred to as Immunoside which has action of anti-inflammation.
- *Amalaki* - *Amalaki* has *Amla*, *Madhura*, *Kashaya Rasa*; *Guru*, *Ruksha*, *Sheeta Guna*; *Sheeta Veerya*, *Madhura Vipaka* and it is *Rasayana*, *Tridoshashamaka*, especially *Pittashamaka*.^[12] It is indicated in *Paittikavikara*, *Raktapitta*, *Raktavikara*

and as *Shonitasthapana*. It contains vitamin C, carotene, nicotinic acid, riboflavine, Gallic acid, Tannic acid and glucose.

Pathya-Apathya

Pathya	Apathya
Green leafy vegetables and fruits like <i>Dadima</i> , <i>Amalaki</i> , <i>Karjura</i> etc.	Excessive consumptions of <i>Lavana</i> , <i>Amla</i> , and <i>Katu Rasa Ahara Sevana</i>
<i>Madhura</i> , <i>Tiktha</i> and <i>Kashaya Rasa Ahara Sevana</i>	Excessive consumptions of <i>Ushna</i> , <i>Tikshna</i> , <i>Kshara</i> and <i>Vidahi Anna</i>
<i>Guru</i> , <i>Snigdha</i> , and <i>Sheeta Guna Ahara</i> like <i>Ksheera</i> , <i>Navaneeta</i> and <i>Takra</i> etc.	<i>Vyaayama</i> (excessive physical exercise), <i>Aatapa Sevana</i> (excessive exposure to heat of sun), <i>Shoka</i> and <i>Adhva</i> (excessive walking)
<i>Ksheera Yavagu Sarpishmatim</i> (gruel prepared with milk and mixed with ghee) in 8th month of pregnancy	<i>Viruddha Bhojana</i> , <i>Asatmya Bhojana</i> , and <i>Vidahi Bhojana</i>
<i>Pradeha</i> , <i>Parisheka</i> and <i>Sheetasana</i> .	<i>Masha</i> , <i>Tila</i> , <i>Kulattha</i> , <i>Nishpava</i> , <i>Dadhi</i> and <i>Sura</i>

DISCUSSION

In *Ayurveda* ITP can be correlated with *Tiryakgata Rakthapitta*. It is *Tridoshaja Vyadhi*, these vitiated doshas imbalances *Agni* and *Raktha Dhatu*, leads to subcutaneous bleeding. Hence, the concept of *Garbhini Paricharya* along with *Pitta Shamaka*, *Rasayana* and *Raktha Sodhaka* drugs are good, single drugs like *Guduchi*, *Ashwagandha*, *Vasa*, *Shatavari* and *Amalaka* etc. regulate immune function and increase platelet count in the body. Also, *Rasayana* therapy and *Samshamani Kriya* is also indicated in *Garbhini*, *Samshamani Kriya* comprises of administering medicines, herbs and formulations which have properties like *Balya*, *Agnideepaniya*, *Sangrahi*, *Jeevaniya*, *Rasayana* and disease modifying effect in the pregnancy.

CONCLUSION

Some pregnant women with ITP may experience several maternal and foetal complications like thrombocytopenia, and intracranial haemorrhage.

Corticosteroids are the first line of therapy in pregnant women or intravenous immune globulin is commonly used in steroid resistant patients. Other treatments such as intravenously administered anti-D and splenectomy during pregnancy have been reported. However long-term use of steroids and surgical procedure mainly splenectomy has immediate and long-term side effect. Therefore, there is a need to understand this disease in contemporary science. In Ayurveda, *Apathya Ahara* also a cause of any disease, highlights on diet and lifestyle changes along with *Garbhini Paricharya* to combat any such diseases seen in pregnancy can be implied. Further we can adopt *Rasayana* therapy, *Samshamani Kriya*, and single drugs like *Guduchi*, *Ashwagandha*, *Shatavari* and *Amalaki* etc. are having immunomodulating, anti-inflammatory and anticoagulant action, and these drugs are safe to use in pregnancy. Careful monitoring of the mother throughout pregnancy is critical to avoid risk to both the mother and neonate.

REFERENCES

- Care A, Pavord S, Knight M, et al. Severe primary autoimmune thrombocytopenia in pregnancy: a national cohort study. *BJOG* 2018; 125:604-12.
- Agnivesha, Charaka samhita of Charaka and Drdhabala with Vaidyamanorama commentary edited by Acharya Vidyadhar Shukla, Ravi Dutt Tripathi, Chaukhamba Sanskrit Pratishthan, Delhi, Reprint 2011, Nidanasthana, 2nd chapter.
- Agnivesha, Charaka samhita of Charaka and Drdhabala with Vaidyamanorama commentary edited by Acharya Vidyadhar Shukla, Ravi Dutt Tripathi, Chaukhamba Sanskrit Pratishthan, Delhi, Reprint 2011, Nidanasthana, 2nd chapter, shloka no.4-6, p484-485.
- Gautam M, Saha S, Bani S, Kaul A, Mishra S, Patil D, et al. Immunomodulatory activity of asparagus racemosus on systemic Th1/Th2 immunity: implications for immune adjuvant potential, *Journal of ethnopharmacology*, 2009;121:241-247
- Agnivesha, Caraka samhita, edited by Vaidya Yadavji Trikamji Acharya, Shareera sthana, Chapter 8, Verse 32, Chowkambha surabharathi prakashana, varanasi, reprint 2013, p. 346.
- Sushruta, Sushruta samhita, edited by Vaidya Yadavji Trikamji Acharya, Shareera sthana Chapter 10, Verse 4, Chowkambha sanskrit samsthan, varanasi, reprint 2013, p. 387.
- Vagbhata, Astanga samgraha, edited by Shivaprasad Sharma, Shareera sthana, chapter 3, verse 2-11, Chowkambha sanskrit series office, varanasi, 2006. p.285
- Agnivesha, Charaka samhita of Charaka and Drdhabala with Vaidyamanorama commentary edited by Acharya Vidyadhar Shukla, Ravi Dutt Tripathi, Chaukhamba Sanskrit Pratishthan, Delhi, Reprint 2011, Chikisthassthana, 4th chapter, shloka no.62-72.
- Chaudhary N, Siddiqui MB, Azmat S, Khatoon S. "Tinospora cordifolia: Ethnobotany, phytopharmacology and phytochemistry aspects". *International Journal of Pharmaceutical Science and Research*, 2013; 3(1): 11-14. [Internet], [cited on 24 Nov], 2018
- Shri. Bhavamisra, Bhavaprakasa Nighantu edited by Late Dr. G. S. Pandey Chaukhamba Bharati Academy Varanasi, Reprint, 2015; 372
- Chunekar Krishnashastri, Pandey G.S. Bhavaprakash Nighantu. 2nd ed. Haritakyadi Varga 19-20. Varanasi: Choukhamba Bharati Academy. 2010, P.392
- Chunekar Krishnashastri, Pandey G.S. Bhavaprakash Nighantu. 2nd ed. Haritakyadi Varga 19-20. Varanasi: Choukhamba Bharati Academy. 2010, P.5

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