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A Clinical Study on Pandu Roga, W.R.T Pancytopenia, an Ayurvedic Approach



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ABSTRACT

Pancytopenia is a condition caused by injury to the bone marrow, haemocytoblasts, or cells directly. In India, 20 percent of fatalities occur each year as a result of poor treatment and late diagnosis. Because of the different causes of pancytopenia, the prevalence is yet unclear. The multipotent hematopoietic stem cells, also known as haemocytoblasts, mature to generate a common myeloid progenitor, which in turn gives erythrocytes, leucocytes, and thrombocytes, which are created in the bone marrow through the process of hematopoiesis.

Bone marrow examination, which is done via bone marrow aspiration, can be used to make a diagnosis. Bone marrow aspiration is a painful procedure that is usually performed by a qualified physician. Reduced numbers of leucocytes, erythrocytes, and thrombocytes in the blood are among the clinical findings. Because these therapies are so painful, an alternative should be sought. One of the areas where innovative medications for the treatment of pancytopenia might be discovered is through an Ayurvedic approach. This case study is an approach to such an intervention to treat this condition through the Ayurvedic line of management.



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INTRODUCTION

Pancytopenia is a condition in which the number of leucocytes, erythrocytes, and thrombocytes are reduced. Bicytopenia is a condition where more than one of the blood cell is low.⁴ In the management of illnesses such as thalassemia and hepatitis C, the pancytopenia state is noticed. Certain antibiotics and anti-HCV medicines produce iatrogenically pancytopenia. Aplastic anaemia, lymphoma, copper deficiency, and other ailments can all produce pancytopenia. Pancytopenia in hepatic disorders is caused by a loss of thrombopoietin and erythropoietin production, as well as a lack of iron storage in injured hepatocytes and splenic sequestration. Pancytopenia, in turn, can lower a person's immunity and, as a result, prove deadly.²Fever (86.7 percent)³, fatigue (76 percent), dizziness (64 percent), weight loss (45.3 percent), anorexia (37.3 percent), night sweats (28 percent), pallor (100 percent), bleeding (38.7%), splenomegaly (48 percent), hepatomegaly (21.3 percent), and lymphadenopathy (14.7%) are the most common clinical manifestations of Pancytopenia.¹ Pancytopenia is now treated with bone marrow stimulant medications, blood transfusions, and bone marrow transplantation. Current treatments are excruciatingly painful and have long-term adverse effects. As a result, employing natural medications to treat these conditions is critical. The focus of this article is on the benefits of Ayurvedic approach in the treatment of pancytopenia which has less adverse effects.

All Acharyas of Ayurveda identify Pandu Roga as a disease with its causation and management, according to current research, can be linked to Pancytopenia which has similar manifestations such as Yakrit and pleehavridhhi, agimandya and aruchi, Pandu varna.

CASE REPORT

A 31-year-old male, presented with fever, associated with chills, 4 episodes of vomiting, 5 episodes of loose bowel, since the previous day, generalized weakness from the past 8 days, and giddiness in the last 2 days, bilateral ankle edema since last 2 days, facial swelling and irritability at the time of admission. At the time of admission, the patient was conscious and all vitals were under the normal limit.

Past history:

The patient is a known alcoholic for the last 6 years, with no H/o diabetes and hypertension.

Clinical findings:

He developed sudden fever, vomiting, and loose stools along with yellowish discoloration of the eyes for which he sought conservative treatment but did not get complete relief, so he discontinued the medicine and then sought Ayurvedic treatment).

On Examinations:

The patient is moderately built with all Vitals under the normal limits. Physical examinations revealed icterus (yellowish discoloration of eyes).

Systemic examinations:

The central nervous system and cardiovascular and respiratory systems were found to be normal.

INVESTIGATIONS (Before Intervention)

	Hb (in gm %)	WBC count (in cells/Cum m)	Neutrophils (in %)	Lymphocytes (in %)	Eosinophils (in %)	Monocytes (in %)	ESR (in mm/1st hr)	Platelets (in cells/Cum m)
Before intervention (05/01/2021)	3.2	990	44	47	08	01	160	29000

INTERVENTION

Date	Medicine	Dose	Frequency
05/01/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
06/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
07/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
08/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
09/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
10/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
11/13/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
12/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
13/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
14/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
15/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
	Bhargava proktaRasayana	1 tsf	Bd
16/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
	Bhargava proktaRasayana	1 tsf	Bd
17/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
	Bhargava proktaRasayana	1 tsf	Bd
18/12/2021	Punarnavamandura	1 tab	Tid
	Liv 52 DS	2 tabs	Tid
	Bhargava proktaRasayana	1 tsf	Bd

RESULT

	Hb (in gm %)	WBC count (in cells/Cu mm)	Neutrophils (in %)	Lymphocytes (in %)	Eosinophils (in %)	Monocytes (in %)	ESR (in mm/1st hr)	Platelets (in cells/Cu mm)
After intervention(18/01/2021)	10.9	4500	62	27	098	02	50	3,98000

DISCUSSION

Punarnavamandura is a herbomineral preparation with main ingredients like Punarnava (*Boerhaaviadiffusa*), trivrit (*Operculinaturpethum*), Shunti (*Zingiber officinale*), Maricha (*Piper nigrum*), Pippali (*Piper longum*), Vidanga (*Embaliarobusta*), Haridra (*Cucurma longa*), Daru Haridra (*Berberis aristate*), Amalaki (*Embalica officinalis*), Bibhitaki (*Terminalia bellirica*), Haritaki (*Terminalia chebula*), Amalaki (*Embilica officinalis*), ManduraBhasma (incinerated red oxide of iron).

The mode of action of punarnavamandoora can be concluded by differentiating the whole drugs into separate groups, such as the drugs like Trivrit, Haridra, Daru Haridra are pitta rechaka, the pitta dosha in pandu is in dominant condition, where these set of drugs help to maintain the pitta dosha in normal quantity. Once the pitta comes under control the inflammatory condition in the liver will get subside? Since yakrit (Liver) is told to be raktavaha moola sthana, the hepatoprotective action of the drug will stimulate the hematopoietic function of the liver.

Since liver is considered as moola sthana of pitta as well as Rakta, addressing the liver was the primary concern, therefore, Liv.52 DS Tablet was chosen. It is a hepatospecific formulation, designed for the management of liver disorders. It has a wide spectrum of therapeutic applications. It restores metabolic efficiency. It increases appetite. It corrects the hepatitis, and cirrhotic conditions. Eight active medicinal herbs viz., Himsra, Kasani, Mandurabhasma, kakamachi, Arjuna, Kasamarda, Biranjasafand Machikaare the chief composition of this formulation. These herbs possess the significant hepatoprotective activity and have been used for centuries as a part of the Ayurvedic approach to healthcare. *Mandurabhasma* has hepatoprotective property. *Mandurabhasma* is a powerful hematinic.

Mandura has been used in ayurvedic treatments since the Samhita period. Mandura and its medicinal properties were first referenced in the 15th century B.C. in the Charaka Samhita. Mandura is used to cure Panduroga, according to Acharya Charaka (Anemia). Mandura is described in Panduroga and Kushtharogaadhyaya by Acharya Vagbhata in Ashtanga Hridayam.

Himsra acts as deepana and Ruchya. This also is sophahara. Kasani is pittahara in nature and is indicated in yakrutvikaras. Kakamachi is sophahara and is tridoshashamaka. Kasamarda is agnideepakapachaka and pittahara. Birajansaf is pittarechaka. Machika is agnideepaka and Raktaprasadaka and pittashamaka, the formulation like Bhargavaproktarasayana which consists of drugs having Rasayanaguna which will promote the metabolism and thereby correct the tissue formation.

CONCLUSION:

The conventional system of medicine treats the ailments along the line of symptoms and fails to correct the cause of such disorders. In the case of pancytopenia, the treatment options are bone marrow stimulant medications, blood transfusions, and bone marrow transplantation which are both painful and don't target the root cause and cannot prevent the recurrence of the condition. Ayurvedic system of medicine, through the individual therapeutic property of the drugs, has a multi-targeted approach thereby correcting the metabolism, promoting nutrient assimilation, rejuvenating the liver, thus enabling the body to recuperate and achieve its normal homeostasis.

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