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Clinical Evaluation of Dhatri Avaleha on Pandu

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Abstract

Background: Pandu is a varnoplakshita vyadhi where in panduta(paleness) is pathognomonic. Pandu roga is considered as a specific disease with its own specific nidana, purvarupa, rupa, samprapti and chikitsa. Rakta gets vitiated by doshas, mainly by pitta dosha, as rakta is pittavargiya, diseases like pandu roga appear. The drugs which constitute the dhatriavaleha helps in correcting the panduroga by virtue of their qualities and action.

Aim: 1. To determine the efficacy of dhatriavaleha in the management of panduroga.

Material and Methods: The study was a single armed clinical trial in which 30 patients of panduroga belonging to the age group of 20-60yrs were enrolled. Dhatriavaleha was prepared by mixing the 8 ingredients thoroughly and made into avaleha form and given to patients orally and anupana is dugdha, dose is of 1karsa in two equal divided doses before food for 30days daily and treatment followup is done on 15th and 31st day. The different parameters such as subjective paramaters like balahani, aarohanaayasa, pandutwa and objective paramaters like hb%, rbc were assessed.

Results: There was statistically significant improvement seen in the subjective and objective parameters especially good improvement is seen in the pandutwa and aarohanayasa.

Conclusion: The study concludes that dhatriavaleha is an effective formulation in the management of panduroga.

Keywords: Panduroga[1]; Dhatriavaleha[2]; Anemia.

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Introduction

The word pandu is formed from the dhatu padi gatou. Padi means gati[3] i.e parinama or transformation. The word padi gatou signifies the formation of rasa, rakta and other dhatus. If the transformation process is hindered or having any aberration then it leads to pandu. Pandu varna is a combination of shweta and peeta varna in equal proportion, similar to pollen grains of ketaki (harita samhita) Amarakosha.[4] The degree of colouration varies according to the severity of the disease.[5] The synonyms of pandu are khamala (based on avastha visesha), panaki, kumbhava, lagharaka and alasaka.[6] Hariman (pallor) and Harita are the diseases mentioned in Rigveda[7] and Atharvaveda. The nidana of pandu roga can be summarised under aharataha, viharataha, nidanaarthakara rogajanya, vaidyakruta. Different discolourations of the body parts in pandu are twak, akshi, mukha and nakha, sira. Ahara vihara and vaidyakruta nidana causes alparaktata through pittadosha prakopa, agnimandya and rasavaha and raktavaha srotodusthi. Pitta pradhana tridosha prakopa produces pandu roga. The upadravas of panduroga are kanthagata abalatwam, hridaya peedanam, shishira dwesha, nabhi shotha, satwahani. Ayurvedic classics mentioned many yogas for the management of pandu rogas. The dhatriavaleha consists of vamsalochana, shunti, madhuyasthi,

pippali, mrudwika, sharkara, amalaki and honey as the ingredients.

The present study is aimed at evaluating the efficacy of dhatriavaleha in panduroga.

Material and methods

Total 30 patients of panduroga were taken under one group i.e group A were selected in the age group of 20-60 years irrespective of sex, occupation and socio-economic status from nkjamc and pgc bidar, karnataka.

Deepana, pachana and koshta shuddhi was done before one week.

A complete clinical study was done by treating the patients with dhatriavaleha per orally with dugdha as anupana for 30days. The data was collected before and after treatment and analyzed by using students T test and treatment follow up done on 15th and 31st day.

Diagnostic criteria

Patients characterised with classical sign and symptoms of ayurveda like subjective parameters like balahani, aarohanaayasa, pandutwa, and objective parameters like hb%, rbc below normal range were diagnosed to have pandu.

Inclusive criteria

1. Patients with pratyatmaka laxana of pandu. 2. Patients of either sex between age group of 20-60 years. 3. Hb% between 8gm% to 10gm%.

Exclusive criteria

1. Patients with any other systemic disorders like Hepatic cirrhosis, Rheumatoid arthritis, uraemia, Malignant disorders etc.
2. Any continuing blood loss like Bleeding piles, Malena, Haematemesis etc.
3. Grahani, Udara roga, Krimi roga, Kamala, etc.

Posology

Method of preparation of Medicines: Dhatri avaleha: Fresh Amalaki fruits were collected, fresh juice was extracted by trituration. Extracted juice was placed over the mild flame and heated, when it was properly boiled, Pippali powder, Yashtimadhu powder, Mridwika kalka (Paste), fine powders of Shunti, Vamshalochana and Sharkara were added. While heating, the content was properly mixed. After testing the samyak leha paka guna, it was brought down from fire. After cooling, Honey was added, mixed properly and then packed.

Presentation: Glass bottles - 200 ml capacity. Indication: Pandu roga, Kamala, Halimaka.

Assessment Criteria of the Study

A) Subjective Criteria

1. Parameters for the study are the predominant signs and symptoms of pandu like Balahani, Shrama, Aarohanaayasa, Hridrava and pandutwa. Gradings were given to these parameters.
2. The Data was collected before, after treatment and the data was analyzed. Statistical analysis was done by student't' test consulting the Biostatistician.

B) Objective

1. Laboratory parameters:- CBP (Hemoglobin% and RBC) with special reference to subjective parameters to assess response in pandu roga and compared before and after treatment.

If necessary- 1. Peripheral blood smear. 2. Stool for ova and cyst.

Data collection

The data was collected from group A before and after treatment. Scoring was done and finally the data compared and analyzed.

Statistical Analysis

The data collected were calculated for mean, standard deviation, t-value and p-value using students t-test (paired). The statistical from each group were compared under guidance of bio-statistician.

Observations:-

Out of 38 patients 30 patients had completed the study. Observations revealed that 60% of patients were from the age group of 25-30years, 60% were females, 83.33% were from urban area, 70% were belonging to middle class, 76.67% of patients were consuming katu rasa, 76.67% were consuming ushna guna yukta ahara, 66.67% were having mala baddhata, 83.33% were addicted to coffee, 80% were addicted to tea, 56.66% were having krura kostha, 70% were of vata pitta prakriti, 53.33% were belonging to avara sara, 86.67% were having madhyama samhanana, 66.67% were having

manda agni, 43.33% were having balahani, 60% were having aarohanaayasa, 66.66% were having pandutwa, 40% were of grade 2 (mild) hb count, grade 2 rbc count i.e 36.66%

Results

The response of treatment for individual group in % on 15th day of treatment is for Balahani 26.66%, for Aarohanaayasa 23.33%, for pandutwa 10%, for Hb count 23.33% and for RBC 6.66% patients showed encouraging response on 15th day of the treatment.

The response of treatment for individual group at the end of the treatment is 23.33% patients for Balahani, 6.66% for Aarohanaayasa, 3.33%,patients for pandutwa, 10% patients for Hb count and 0% patients for RBC count showed good response at the end of the treatment.

Effect of Dhatri avaleha on Balahani: The mean before treatment was 2.83 which was reduced to 2.56 on 15th day of the treatment with 26.66% improvement. The total effect of therapy provided statistically significant ($p<0.01$) result with t value of 3.37

Effect of Dhatri avaleha on Aarohanaayasa The mean before treatment was 2.56 which was reduced to 2.33 after the treatment with 23.33% improvement. The total effect of therapy provided statistically significant ($p<0.01$) result with t value of 3.28

Effect of Dhatri avaleha on pandutwa : The mean before treatment was 2.5 which was reduced to 2.4 after the treatment with 10% improvement. The total effect of therapy provided statistically non significant($p<0.10$) result with t value of 2

Effect of Dhatri avaleha on Hb count: The mean before treatment was 2.46 which was reduced to 2.2 after the treatment with 26.66% improvement. The total effect of therapy provided statistically significant ($p<0.01$) result with t value of 2.88

Effect of Dhatri avaleha on RBC count : The mean before treatment was 2.16 which was reduced to 2.1 after the treatment with 6.66% improvement. The total effect of therapy provided statistically non significant ($p<0.10$) result with t value of 1.75

Grading for the Severity

Grading for the severity of the individual symptoms was framed as a (1-4) point scale. Grading Criteria.

Table 1: Subjective Criteria.

Parameter	G1	G2	G3	G4
1) Balahani	No Weakness	Weakness not affecting his daily activities	Weakness affecting his daily activities	Activites reduced due to weakness.
2) Aarohana Ayasa	No Exertional dyspnoea	Mild dyspnoea with normal activities	Dyspnoea stops his daily activities intermittently	Dyspnoea stops his daily activities frequently
3) Pandutwa	No pallor	Conjunctiva slightly pale, nail and other mucus membrane not pale	Conjunctiva pale, nail and other mucus membrane slightly pale	Conjunctiva, mucus membrane and nails pale

B) Objective criteria:- (CBP) i) Hb% – Normal - Male:-13.0-18.0g% Female:- 11.5-16.0g% ii) R.B.C - Normal – Male:- 4.5-5.5mill/cu.mm Female:-3.5-5.5mill/cu.mm (Table 2).

Table 2: Grading for the clinical improvement for individual variables.

Variable	G1 Normal	G2 Mild	G3 Moderate	G4 Severe
Hb%	M-13-18g% F-11.5-16.0g%	M-9-13g% F-9-11.5g%	M-8-9g% F-8-9g%	M-less than 8g% F- less than 8g%
R.B.C	M- 4.5 5.5mill/cu.mm F-3.5- 5.5mill/cu.mm	M- 4-4.5 mill/cu.mm F- 3-3.5 mill/cu.mm	M- 3.5-4 mill/cu.mm F- 2.5-3 mill/cu.mm	Less than 3.5 mill/cu.mm Less than 2.5 mill/cu.mm

Grading for the clinical improvement for individual variables: 1. CI – III: Clinical improvement excellent i.e. 3 degree reduction in the severity score against the initial score, i.e. severe – normal. 2. CI – II: Clinical improvement good i.e. 2 degree reduction in the severity score Against the initial scores, i.e. reduction from moderate – normal, severe- mild. 3. CI – I : Clinical improvement encouraging i.e., 1 degree reduction in the severity score against initial score, i.e. reduction from mild – normal, moderate – mild and severe – moderate. 4. C.S : Clinically stable, i.e. severity score remains as against the initial score. 5. C.D : Clinically deteriorated i.e. increase in severity score against the initial score.

Statistical analysis of group results

Effect of Dhatri avaleha on Balahani. The mean before treatment was 2.83 which was reduced to 2 after the treatment with 83.33% improvement. The total effect of therapy provided statistically highly significant($p<0.001$) result with t value of 5.95.

Effect of Dhatri avaleha on Aarohanaayasa

The mean before treatment was 2.56 which was reduced to 2 .2after the treatment with 36.66% improvement. The total effect of therapy provided statistically significant($p<0.01$) result with t value of 3.36.

Effect of Dhatri avaleha on pandutwa. The mean before treatment was 2.5 which was reduced to 2.23 after the treatment with 26.66% improvement. The total effect of therapy provided statistically significant($p<0.02$) result with t value of 2.67.

Effect of Dhatri avaleha on Hb count. The mean before treatment was 2.46 which was reduced to 2 after the treatment with 46.66% improvement. The total effect of therapy provided statistically highly significant($p<0.001$) result with t value of 3.88

Effect of Dhatri avaleha on RBC count. The mean before treatment was 2.16which was reduced to 2 after the treatment with 16.66% improvement. The total effect of therapy provided statistically significant($p<0.05$) result with t value of 2.38.

Discussion

Maximum number of patients were of 25-30 years of age group, maximum no of pt were females, and the contributory factors for women were menstruation, marital tension, lactation and dietary inadequacy. Maximum no of subjects 76.67% were consuming ushna guna yukta ahara which causes vitiation of vata and pitta dosha which are responsible for pathogenesis of pandu roga.

Symptomatology incidence:- Pandutwa, Arohana ayasa, Balahani were present in all the patients of Pandu. Other manifestations like shrama, Hridrava, Angamarda were also observed. Study showed predominance of Vataja lakshanas. Based on the data, relation can be drawn that in Pandu the predominant presenting features are Pandutwa, Arohana ayasa and Balahani.

Effect of result on Subjective parameters

Effect of Dhatri avaleha on Balahani: Balahani and shrama showed 83.33% improvement which is statistically highly significant ($p<0.001$) result with t value of 5.95 ,Effect of Dhatri avaleha on Aarohanaayasa. Aarohanaayasa showed 36.66% improvement which was statistically significant ($p<0.01$) result with t value of 3.36, Effect of Dhatri avaleha on pandutwa. Pandutwa showed 26.66% improvement which was statistically significant($p<0.02$) result with t value of 2.67.

Effect of result on Objective parameters

Effect of Dhatri avaleha on Hb count Hb count showed 46.66% improvement which was statistically highly significant ($p<0.001$) result with t value of 3.88, Effect of Dhatriavaleha on RBC count: RBC count showed 16.66% improvement which was statistically significant($p<0.05$) result with t value of 2.38.

Ativyayama, Atimaithuna, Bharaharana, Panchakarma pratikarma cause excessive Karshana of body because of which the body requirements increase which is once again the cause of pandu. various haemorrhagic conditions are described which cause Pandu etc Among the Dhatu involvement, Pandu chiefly affects the Rakta dhatu as it is clearly told by Sushruta, Chakrapani and Charaka and Vagbhata. In Raktasrava, Sushruta has advised consumption of Yakrut, which is the chief source of Iron.

Probable mode of action of Dhatriavaleha

Ingredients in decreasing order of their proportions in Dhatriavaleha are as follows:

a) Amalakiswarasa 1 drona 11.946kgs. b) Sharkara 0.5 tula 2.34kgs. c) Pippalichurna 1 prastha 746gms. d) Mrudwika 1 prastha 746gms e) Madhu 1 prastha 746gmsf) Vamshalochana 2 pala 48gms. g) Shunti 2 pala 48gms.

h) Yashtimadhu 2 pala 48gms. Amalaki is the main ingredient in this Yoga and hence the name Dhatriavaleha in Charaka Samhita and Amalakyadiavaleha in BhaishajyaRatnavali.

Karma

Dosha karma

- Pittahara: Amalaki, Vamshalochana, Yashtimadhu, Pippali, Draksha, Sharkara, Madhu
- Vatahara: Vamshalochana, Shunti, Pippali, Yashtimadh, Draksha, Sharkara •Kaphahara: Amalaki,Shunti
- Tridoshaghna: Amalak, Pippali, Madhu.

Vyadhikarma

- AmalakiRaktapitta, Meha
- VamshalochanaKshaya, Raktadosha, Pandu, Kamala, Raktapitta
- Shunti Pandu, Hridya,
- Yashtimadhu Sadyok shatasru kharati, Kshaya Kshaya, Shosha
- PippaliJwara, Kushta, Ama
- DrakshaKshaya, Arshoroga, Raktapitta, Jwara
- SharkaraKshaya, Raktadosha
- Madhu Raktarogaghna, Shosha, Kshaya, Raktapitta, Hridroga

Maximum number of patients were of 25-30 years of age group, maximum no of pt were females, and the contributory factors for women were menstruation, marital tension, lactation and dietary inadequacy. Maximum no of subjects 76.67%were consuming ushnagunayuktaahara which causes vitiation of vata and pitta dosha which are responsible for pathogenesis of panduroga.

Symptomatology incidence

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Conclusion

Dhatriavaleha shows more effectiveness in improving the balahani, shrama, aarohanaayasa & It is mildly effective in improving panduta, improving hb% and improving RBC count.

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