

A REVIEW ON CERTAIN RESEARCH WORKS DONE ON PANDUROGA AT GUJARAT AYURVED UNIVERSITY

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ABSTRACT

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Panduroga is one of the commonest and most prevalent diseases and known to mankind since time immemorial. It is seen that nutritional deficiency is the major etiological factor of the disease in the developing countries like that India but Ayurveda considers this disease more metabolic than nutritional. The incidence of the disease is in the both sex but females are majorly affected. Malnutrition contributes significantly to the development of *dhatu aposhan* leading to *bala* and *ojas kshaya*. Here in present review study, considering the significance of therapeutics, a number of studies have been carried out

from the different Post graduation departments of Gujarat Ayurveda University. Total 8 studies were carried out with the impact of clinical guidelines and therapeutic utilities in the management of Panduroga.

KEYWORDS: Anaemia, Ayurveda, Panduroga, Review.

INTRODUCTION

Rakta has been considered as a key factor for the *Jeevana* (life), *Prinana*, (provides nutrition to other dhatus), *Dharana* and *Poshana karma* of the body.^[1] It is seen that *Rakta* gets vitiated by *Doshas*, mainly by *Pitta dosha* as *Rakta* is *Pittavargiya* and disease like *Pandu* appears. *Pandu roga* is *Pitta pradhana vyadhi*. Due to *hetu sevana*, *Pitta pradhana tridosha* gets vitiated and is circulated in the whole body causing *shithilata* in all *dhatu* which ultimately reduces *Rakta* and *Meda dhatu*. Decrease in *Sneha* and *Rakta Dhatu rupa Oja, guna, Varna*,

bala are lost and thus there is *Pandu roga*.^[2] Change in the condition of an individual (declined one) usually points towards initiation of an illness and it are one of them cardinal sign of *Pandu Roga*.^[3] As majority of features in *Panduroga* and anemia are similar. Among different types of anemia, Iron deficiency anemia (nutritional anemia) has been labelled as the commonest nutritional deficiency.^[4] An *Ayurvedic* classic always emphasizes the need of advancements in the science to keep pace with the need of time. In the back drop of the renaissance of *Ayurveda* as an alternative or even an ultimate anchor to the psychosomatic and life style related diseases. The time is ripe enough to seriously take up productive researches in such disorders where *Ayurveda* can offer a better hand than any other medical system.

MATERIALS AND METHOD

Certain works review of Post-Graduation dissertations from Gujarat Ayurved University during 2005 to 2015 was compiled for screening the therapeutic evaluation.

RESULTS AND OBSERVATION

Sarkar P (2005)^[5]

Total 30 patients, age between 12 yrs to 60 yrs were registered and 22 patients completed the treatment. The study was planned in 3 groups. Group 1, 7 patients [lauha bhasma, ½ Ratti (62.5 mg) filled in gelatine capsule of 250 mg capacity was given twice a day, taken 1 hr before or 3 hr after taking food, for duration of 1 month], Group 2, 7 patients [mandura bhasma, ½ Ratti (62.5 mg) filled in gelatine capsule of 250 mg capacity was given twice a day, taken 1 hr before or 3 hr after taking food, for duration of 1 month], Group C, 8 patients [dried ferrous sulphate, 62.5 mg was given twice a day]. Lauha Bhasma gave more symptomatic relief. Mandura Bhasma considered as better haematinic on the basis of objective parameters in patients of Panduroga (Iron deficiency anaemia).

Patel B (2006)^[6]

Total 27 patients, age between 12 yrs to 60 yrs were registered and 19 patients completed the treatment. The study was planned in 2 groups. Group A, 13 patients [kasis bhasma, ½ Ratti (62.5 mg) filled in gelatine capsule of 250 mg capacity was given twice a day, taken 1 hr before or 3 hr after taking food, for duration of 1 month], Group B, 6 patients [lauha bhasma, ½ Ratti (62.5 mg) filled in gelatine capsule of 250 mg capacity was given twice a day, taken 1 hr before or 3 hr after taking food, for duration of 1 month]. Clinically, Kasis Bhasma showed a better haematinic effect than Lauha Bhasma.

Dave U (2007)^[7]

The clinical study was carried out in 46 patients. 40 patients were completed the course of treatment in three Groups. GROUP-A Indigenous compound Drug Pandughna vati [oral drug]. 1 gm twice daily after meal with water for 6 weeks. GROUP-B Classical Compound Drug Dhatriyarista [Oral drug] 20 ml twice daily before meal with water for 6 weeks. GROUP-C Ferrous Sulphate [Standard Control] 150 mg thrice daily after meal for 6 weeks. Overall comparison showed that best results were obtained in both the trial compounds in the form of better statistical significance and percentage relief but Ferrous sulphate the standard control drug shows better results in comparison to the trial compounds. Present study reveals that the selected management have potential effect on Pandu roga with the added advantage of being free from side effects.

Patil D (2008)^[8]

Total 20 patients of *Pandu* were selected for the present study from the OPD and IPD of Department of Kayachikitsa, Ahmedabad. They were treated in 2 groups; in each group 10 patients were treated. In group A 10 patients were treated with *Nisha Loha Vati* in a dose of 2 gms twice a day for 2 months. In group B 10 patients were treated with *Navayas Loha Vati* in a dose of 2 gms twice a day for 2 months. Hb level below 10 gm % was also kept as main diagnostic criteria for the selection of patients. Other necessary investigations were carried out to exclude other pathologies as well as for the assessment of present health status of patients. In overall effect of therapy, complete remission was observed in 20% in both groups, marked improvement was found 20% in group B, moderate improvement was found in 40% in Group A and 50% in group B. Mild improvement was found in 40% in Group A and 10% in Group B. In *Navayas Loha Vati* group better results were obtained as compared to *Nisha Loha vati*.

Subhashchandra M (2009)^[9]

Total 15 patients, age between 12 yrs to 60 yrs were registered and randomly divided into two groups. 12 patients completed the treatment and 3 discontinued. Group-A (*Dhatryarishta* prepared by *Dhatri Swarasa*) Group-B (*Dhatryarishta* prepared by *Dhatri Kwatha*). In both of the groups; Dose: 20 ml twice after meals. *Anupana*: 20 ml water with follow up period of 28 days. *Dhatryarishta* prepared by *Dhatri Swarasa* provided better results than *Dhatryarishta* prepared by *Dhatri Kwatha*.

Agrawat M (2011)^[10]

Total 37 patients were registered in the present study. Out of which 33 patients were completed the treatment, 14 in Group-A: Classical *Virechana karma* with *Erand taila* (Q.S. Approx 25 ml), *Triphala kwatha* (Q.S. Approx 50 ml) and *Ichchabhedi Rasa* (Q.S. Approx 2-4 tab) and *Pandughni Vati* 1 gm (2 tablets of 500 mg each) twice a day with water for 2 months and 19 in Group-B: Only *Pandughni Vati* 1 gm (2 tablets of 500 mg each) twice a day with water for 2 months. No significant improvement was found on Objective parameters by *Pandughnivati*; In *Virechana* group, highly significant improvement was found on all the symptoms but on objective parameters significant results were not found. It was also concluded that if after *Shodhana (Virechana)*, *shaman yoga* is given its effect is potentiated.

Sreenivasan J(2013)^[11]

Total 54 Adolescent girls patients, age between 10 -16 years were registered and 48 patients completed the treatment. The study was planned in three groups, Group A, 18 patients [first *Koshtha Shuddhi* with *haritaki churna* 3gm with warm water at night for initial 3 days and *Deepana- Pachana* with *shunthi churna* 4 gm with warm water before meal for 4 days and *dhatrī lauha* 1gm with *madhu* and *grita* in unequal proportion with empty stomach for 3 months], Group B, 15 patients [*dhatrī lauha* 1gm given with *madhu* and *grita* in unequal proportion with empty stomach for 3 months without *Koshtha Shuddhi* and *Deepana* and *Pachana*] and Group C, 15 patients [Standard control with Ferrous sulphate and folic acid 150 mg per day for 3 months]. The study is registered in CTRI Ref.no.CTRI/2011/12/002299 [Registered on: 27/12/2011]. and started after obtaining ethical clearance from Institutional Ethics Committee (Ref. PGT/7-A/Ethics/2011-12/2087 dated 5/9/11). In all subjective parameters, *Dhatrī Lauha* with *Deepana Pachana* gave better results and in objective parameters control group of ferrous sulphate folic acid gave better results. In overall assessment the improvement in *Dhatrī Lauha* with *Deepana Pachana* group was better than groups treated with *Dhatrī Lauha*, and ferrous sulphate. No adverse reactions were found for the drugs in three groups.

Layeeq S (2013)^[12]

Total 38 patients of Pandu were registered and 35 patients completed the treatment. Patients were randomly divided under three groups. Group A, 12 patients [first *Deepana-pachana* with *Trikatu churna* 3gm with luke warm water, thrice a day for 3-5 days. *snehpana* with *sudhha go-grita* for 3-7 days. *Abhyang swedana* with *bala tail*, 2 times a day for 1 day. *vaman*

karma with *madanphalapippali* yoga and *samsarjana krama* for 3-7 days as per *sudhhi*, then internal medicine with *Amalaki rasayana* 2gm, tds with *madhu-ghrita* for 45 days.], Group B, 13 patients [*Amalaki rasayana* 2gm, tds with *madhu-ghrita* for 45 days.], Group C, 10 patients [Ferrous Fumarate in the dosage of 150 mg/day equivalent to 50mg of elemental iron for 45 days]. The institutional ethics committee has approved the study (PGT/7A/Ethics/2011-12/2087). CTRI Registration (CTRI/2013/03/003503). *Vamana* followed by *Amalaki Rasayana* was found more effective than Standard control (iron supplement in the form of ferrous fumarate) in relieving the symptoms of the disease although standard control provided good results in haematological parameters than *Vamana* followed by *Amalaki Rasayana*.

DISCUSSION

The reason for acquiring *Panduroga* may be due to improper diet nutrition, excessive indulgence in junk foods and mental Stress.^[13] vegetarians are more vulnerable to this disease as they can't get enough iron from vegetarian food, as well iron which is available from vegetarian sources i.e. non heme iron has less bioavailability.^[14] Calcium compounds are rarely indicated as *Maraka Dravya* for preparations of *Lauha Bhasma* and *Mandura Bhasma*. And these are also rarely included in formulations of *Lauha* and *Mandura*, where ever *Lauha* and *Mandura* preparations are indicated to *Pandu*, *Kamala* and *Shotha*. Calcium preparations neutralize the gastric acidity thus reduce iron absorption. Supplement of oral iron preparations cause increase in iron absorption leading to synthesis of haemoglobin.^[15] Disturbed sleep leads to improper digestion, leading to impaired absorption leading to malnourishment^[16] & this is the causative factor of iron deficiency. Constipation causes inadequate absorption of nutrient substances because due to constipation there are sluggish peristaltic movements.^[17] persons who are indulged in intense exercise have marginal or decreased Iron stores. It is due to increased gastrointestinal blood loss after running and a greater turnover of red blood cells.^[18] The mechanism by which iron enters the mucosal cells lining the upper gastrointestinal tract is unknown^[19] *Pandu* has been mentioned as a disease getting manifested when perturbed Kapha gets localized in *Rakta Dhatu*^[20]. *Pandu* belongs to *Santarpannottha* condition for which *doshavsechana* is indicated.^[21]

CONCLUSION

From above all the studies, they give Ayurvedic classical therapeutic rationale for *Panduroga*. *Samsodhana* treatment followed by *shamana* can be better therapeutic modality for this disease.

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