

A CLINICAL STUDY TO EVALUATE THE EFFECT OF *URDHWA-ADHO SHODHAN* FOLLOWED BY REPEATED LEECH APPLICATION IN PSORIASIS

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ABSTRACT

Objectives: Ayurveda, especially with *shodhan* (bio purification) therapy; is emerging as a choice of therapy to control chronic skin disease like Psoriasis. All *Acharyas* have given emphasis on repeated *shodhan* therapy but complete schedule of *Shodhan* therapy is itself a very time consuming and hectic for patients living in today's competitive and busy life. **Methodology:** To overcome this problem we have prepared a modified scheduled of repeated *shodhan* procedures which are not very time consuming and less troublesome and patient can perform it with good tolerance without much discomfort. In this schedule we have done *Urdhwa-adho shodhan (Vaman and Virechan)* once and Leech application repeatedly. **Results:** Results are very much encouraging and shows desirable effects and provides key for further research in this field. **Discussion:** Above modified schedule of repeated *shodhana* is easily applicable, safe, simple and cost effective management for Psoriasis.

Keywords: *shodhan, Urdhwa-adho shodhan, Vaman and Virechan*

INTRODUCTION

All type of the skin diseases in ancient Indian classics have been described under the broad heading of 'Kushtha'¹ which are further divided into *MahaKushtha* & *KshudraKushtha*. *Kushtha* runs as a chronic disease which is generally considered as difficult to cure & even if it is cured relapse is common. In Ayurvedic classics, all types of *Kushtha* have been described as '*RaktaPradoshajaVikara*' (diseases due to impure blood)². It is mentioned that each type of *Kushtha* is *Tridoshaj* (which involves three biological humors)³ and importance of repeated

shodhan therapy is described in all types of *Kushtha*⁴. Nowadays, whole world is gradually looking and turning towards Ayurveda for safe and complete cure of diseases. Especially in the field of skin problems Ayurveda can contribute remarkably a lot. *Shodhana* (bio-purification), *Shamana* (pacification) are main route of treatment for any disease⁵.

Leech Therapy is a unique Parasurgical Procedure for various chronic, auto immune, degenerative disorders etc. Leech Therapy is a type of bio purification by virtue of bloodletting for vitiated *Pitta*

and *RaktaDoshas*⁶.

Aims & Objectives:-

Present study was undertaken with following aims & objectives

- Conceptual & clinical study on Psoriasis according to *Ayurveda* as well as Modern science on various scientific parameters.
- Clinical evaluation of role of *Vaman*, *Virechana* & *Jalaukavcharan* in Management of Psoriasis.
- A comparative clinical study of trial drug along with standard allopathic regimen.

Methodology: Diagnosed cases of Psoriasis were included in the study with following inclusion and exclusion criteria.

Inclusion Criteria:

- Patient aged between 18-60 years
- Willing to sign consent form
- Not taking any other medication for psoriasis
- Not suffering from other major systemic disorder

Exclusion Criteria

- Patient below age 18 and above age 60
- With Leprosy, Tuberculosis, Paralysis, pregnancy, Lactating etc.
- With bleeding disorders with abnormal Bleeding and Cloting time
- Any contraindications for vaman and virechan according to Classical Text.

Grouping: All the patients fulfilling the criteria of diagnosis and inclusion were randomly divided into three groups as Group A, Group B, Group C consisting of 10 patients each.

Group A – Vaman, Virechan and Leech application

Group B – Only Leech application

Group C – Control group (Methotrexete 7.5 mg weekly once)

Procedure Protocol and Posology

Panchakarma (biopurifications) procedures were carried out as follows:

Vaman Karma: *Pachana* with *Panchkol-Churna* 3 gm BD for 3 days, *Snehpan* (internal oleation) was done with *Panchtiktaghrita* given for 5-7 days with 50ml as starting dose till *samyak sneha lakshana* (classical symptoms of proper oleation) was observed i.e. up to ~200ml and then *Sarvang snehan Sweden* (whole body oleation and sudation) was done. *Vaman* was induced by *Madanphaladiyoga* after that *Sansarjankram* (diet schedule after biopurification procedures) was carried out.

Virechana Karma: *Pachana* with *PanchkolChurna* 3 gm BD for 3 days, internal oleation was done by *PanchtiktaGhritatill* classical symptoms of proper oleation was observed. Then whole body oleation and sudation was done & *Virechana* by *AbhayadiModak* was done after that post operative regime for biopurification (*Sansarjankram*) was done.

Pathyapathya: The patients of all the three groups were advised for:

Do's

1. To take light diet like husked Green gram, wheat and vegetables.
2. Avoid stress
3. Daily light exercise.

Don'ts:

1. Don't take sour, pungent, spicy and heavy food.
2. Don't smoke or consume alcohol.
3. Avoid incompatible diet.
4. Don't take curd.

Criteria of Assessment:

All the patients were assessed for relief in signs and symptoms before and after the completion of trial for objective parameters. To give objectivity to subjective signs and symptoms PASI grading/scoring system was adopted.

Subjective parameters:

1. PASI Score (Psoriasis area & Severity Index) was considered as both subjective & objective criteria as it covers both subjective as desquamation (scaling), indurations (thickness) and erythema; and objective parameters as coverage area For the calculation of

score online **PASI Calculator Software was used**

Elements:

- A. Body regions as percent of body surface area
- B. Extent of body region affected
- C. Extent of psoriatic changes

Table No 1 Showing Body regions as percent of body surface area:

Body Regions	Code	Body surface area
Head	H	10 %
Trunk	T	20%
Upper extremities	U	30%
Lower extremities	L	40%

Table no 2 Showing Extent of body region affected:

Body area affected	Extend indicator
0 – 5%	0
5 – 25%	1
25 – 45%	2
45 – 55%	3
55 – 75%	4
75 – 95%	5
95-100%	6

Table No 3 Showing Extent of psoriatic changes:

Symptoms	Code	Extend
Erythema	E	0 – 4
Infiltration	I	0 – 4
Desquamation	D	0 – 4

PASI = SUM (percent BSA in body region)* (extent Erythema in region) + (extent infiltration in region) + (extent desquamation in region)* (extent of body region affected) = [0.1* (Erythema head) + (infiltration head) + (desquamation head)* (extent of head affected)] + [0.2*(Erythema trunk) + (infiltration trunk) + (desquamation trunk)* (extent of trunk affected)] + [0.3*(Erythema upper extremities) + (infiltration upper extremities) + (desquamation upper extremities)* (extent of upper extremities affected)] + [0.4* (Erythema lower extremities) + (infiltration lower extremities) + (desquamation lower extremities)* (extent of lower extremities affected)]

Interpretation:

- **Minimum score – 0**
 - **Maximum score – 72**
- 2. Kandu (Itching index):** Symptom rating scale was as follows:
- 0:**No Itching
 - 1:**Mild Itching comes occasionally, duration 2/3 min,
 - 2:**Moderate itching occurs frequently, lasts for longer time, scratching is essential.
 - 3:**Severe Itching, Occurs frequently, lasts More than 20-30 min, bleeding on scratching.
- 3. Mandal Roopa :** Symptom rating scale was as follows:
- 0:**No Mandal.

- 1: Slight circular patch.
- 2: Moderately elevated patch.
- 3: Marked plaque with infiltration.
- 4. **Matsya shakalopamam scale**
: Symptom rating scale was as follows.

- 0: No scaling.
- 1: Frequent scaling.
- 2: Moderate scaling.
- 3: Marked scaling.

Objective parameters:

Objective parameters were analysed before and after findings of laboratory parameters. The parameters selected were as follows:

- 1. Routine blood count: Hb%, TLC, DLC.
- 2. ESR
- 3. Liver Function test : (SGOT, SGPT)

Results:

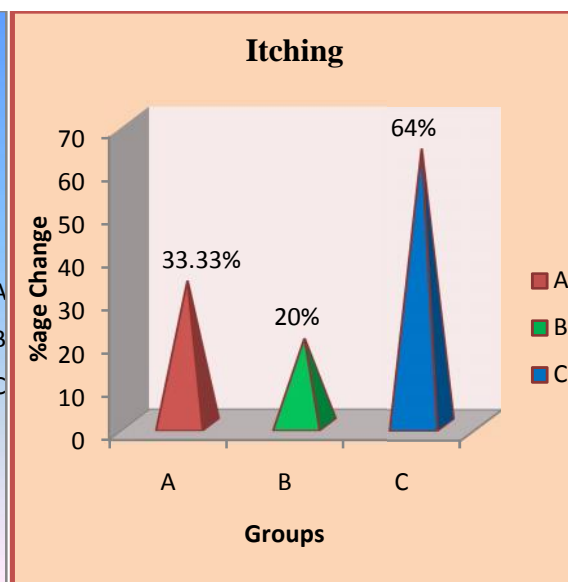
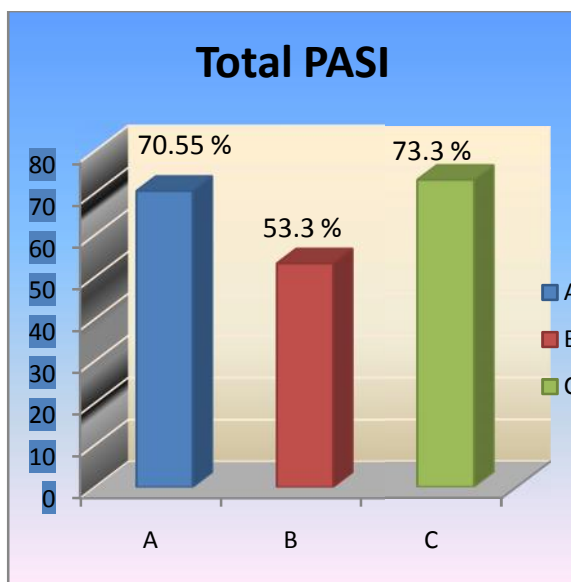
The present clinical trial was done on 30 clinically diagnosed patients of psoriasis. Total 72 patients were screen out & 43 patients were selected for the trial that fulfills

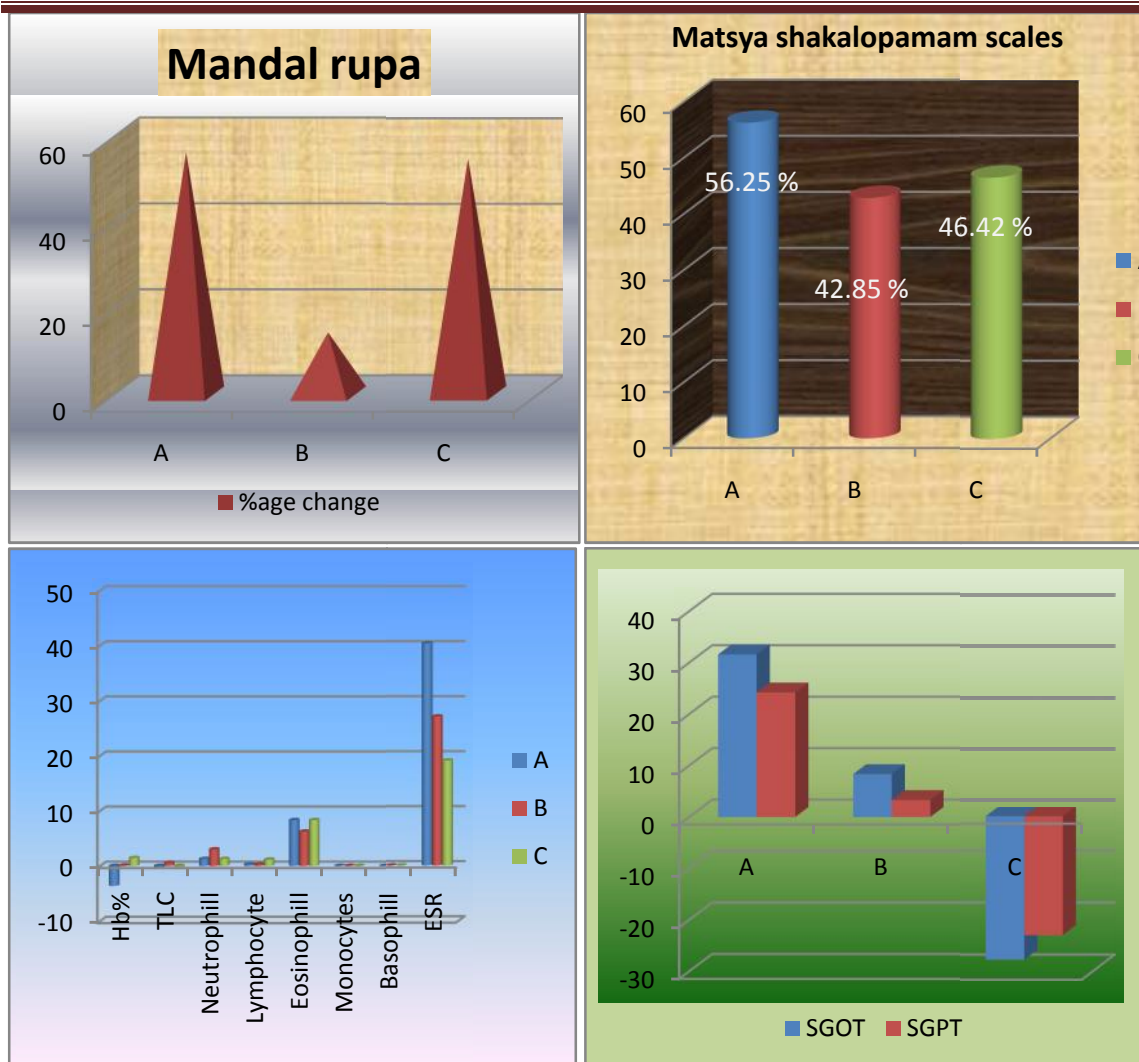
the inclusion criteria. Out of 43 patients 37 patients successfully completed the trial. 6 patients discontinued the treatment. Out of 37 successfully completed patients 30 patients were selected randomly to maintain equal no of samples in each group. Obtained observations were analyzed statistically with the help of **INSTANT GRAPH-PAD 3** & the obtained results are as follows:

1) Effect on Subjective parameters:

- PASI Score
- Mandal Roop
- Kandu (Itching Index)
- Matsya shakalopamam (scale)

PASI Score was counted as per guidelines & formula given by National Psoriasis Foundation. Online PASI Calculator was used for calculating PASI Score. Utsanna Mandal Roop, Kandu & Matsya shakalopamam (scale) Index were calculated by adopting appropriate grading scale (Discussed in Materials & Methods)





DISCUSSION

- Among the effect of therapies, Leech application does not show much significant improvement in the PASI scoring (Erythema, thickness, scaling and area of involved skin) and itching of Psoriatic patients in comparison to Group A and Group C.
- Leech application has shown its effect only on scaling. This may be due to the dominance of *pitta* in the production of scale and *jalauka* has *pittaghna*⁷ property.
- Group A shows marked improvement in erythema on the other hand Group B shows no improvement. Erythema (redness) seems to be *pittaja*⁸ entity but considering the aforesaid results it can

be said this redness in Psoriasis is *Paratantralakshana*.

- Group C shows overall highest percentage of improvement. This group shows negative effect on SGOT and SGPT which may be due to toxic⁹ effects of Methotrexate.
- Though Group C is having significant improvement from all angles of disease in spite of that Group A shows significant improvement in the parameters of general wellbeing like general condition, texture of skin (*TwakPrasad*), skin glow and fairness (*VarnaPrasad*), feeling healthy, mental relaxation etc. which are not so distinctly observed rather negatively observed in Group C.
- Antioxidant status of the body gets improved with the help of *shodhan* ther-

apy on contrary Methotrexete can lower the concentration of foliate in plasma and may cause a megaloblastic anemia¹⁰.

- Group B shows very less improvement in majority of the assessment parameters. Leeches applied without prior *shodhan* therapy doesn't have any significant effect on erythema and Leeches applied after *urdhwa – adho-shodhan* shows marked improvement in erythema. It is also observed that in maximum patients there was complete disappearance of erythema in the next day after Leech application this may be due to pacification of *partantra prakopa of pitta*.
- Better results were shown by *Ayurvedic formulation (group A)* in *Matsyashakalopamam*¹¹ scale as compare to allopathic counterpart. Administration of *abhyantara and bahya snehana*¹² before shodhan procedures reduces dryness of skin and thus removes the causes of scaling in group A.
- Consequently during *shodhan* therapy *abhyanga* is done, massage is known to improve the cutaneous circulation¹³ which removes toxins and thus may contribute reduction in scaling.
- Also previous study shows that *shodhan* therapy has highly significant increase in SOD level, SOD is added to many cosmetics to prevent oxidative damage to skin, and with the help of above study reason of lessening in scaling can be assumed¹⁴.
- Significant improvement in scaling is also elicited in group B. Excessive *ruk-sata* of *rakta* is supposed to be the cause of scaling. Application of leech eliminated the impurity of blood and thereby may cause reduction in dryness

of skin and ultimately diminishes scaling.

CONCLUSION

Vaman Virechan followed by repeated Leech application is effective management of psoriasis. Above regimen is safe, cost effective and free from any hazards. It may be the good alternative for established standard modern line of treatment for psoriasis as well as Classical repeated *Sanshodhan* therapy.

REFERENCES

1. Vagbhatta, Astanga Hridaya, Nidana Sthana, Kushthashwitrakrimi Nidanam Adhyaya 14/3, edited by Y Upadhyaya, Chaukhambha Prakashan, Varanasi. 2012;
2. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Sutra Sthana, Vividha Ashita Peeteeya Adhyaya 28/11, edited by K. Shastri and G. Chaturvedi, Chaukhambha Bharati Academy, Varanasi, 2013;
3. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Chikitsa Sthana, Kushtha Chikitsa Adhyaya 7/9-10, edited by K. Shastri and G. Chaturvedi, Chaukhambha Bharati Academy, Varanasi, 2013;
4. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Chikitsa Sthana, Kushtha Chikitsa Adhyaya 7/41, edited by K. Shastri and G. Chaturvedi, Chaukhambha Bharati Academy, Varanasi, 2013;
5. Vagbhatta, Astanga Hridaya, Sutra Sthana, Dwiwidhopkramaniya Adhyaya 14/4, edited by Y Upadhyaya, Chaukhambha Prakashan, Varanasi, 2012;
6. Sushruta, Sushruta Samhita, Sutra Sthana, Jalaukaavacharaniyam Adhyaya 13/3-6, 14th edition by Kaviraj

- Ambikadatta Shastri, Vol-1, Chaukhamba Orientalia, Varanasi, 2012;
7. Ibidem.
 8. Vagbhatta, Astanga Hridaya, Sutra Sthana, Doshabhediya Adhyaya 12/51, edited by Y Upadhyaya, Chaukhamba Prakashan, Varanasi. 2012;
 9. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4264083/>
 10. <https://www.ncbi.nlm.nih.gov/pubmed/8349867>
 11. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Chikitsa Sthana, Kushtha Chikitsa Adhyaya 7/21, edited by K. Shastri and G. Chaturvedi, Chaukhamba Bharati Academy, Varanasi, 2013;
 12. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Siddhi Sthana, 1/21, edited by K. Shastri and G. Chaturvedi, Chaukhamba Bharati Academy, Varanasi, 2013;
 13. <https://www.ncbi.nlm.nih.gov/pubmed/15292737>
 14. Mehta Chetan. Sharma R S. In the context of "evam vishuddha kosthasya..." samshodhan chikitsa w.s.r to oxidative stress. Dissertation for Ayurveda Vachaspati 2010, Rajasthan Ayurveda University, NIA, Jaipur.

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