

Clinical Comparative Study in Management of Ubhay Pada Shoth with Shoth-har Mahakashaya & Punarnvastak Kashaya in Old age Patients: A Pilot Study

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Abstract

Health & disease are the two faces of a coin. The concept is to aid human beings to provide healthy life and to prevent diseases.

Lifestyle diseases are on the rise due to innumerable factors. Pedal edema is one of the common problems in middle and old-age persons. According to sign and symptoms of edema it can be correlated to Shoph or Shoth according to equivalent symptoms mentioned in the relevant literature. Pedal edema is a common clinical condition which can be found in any age group or socio-economic class in society but it is commonly seen in females of old women. Ayurvedic management measures appear to be more satisfactory and promising due to their holistic and totalistic approach. Punarnava is a well-known *shoth-har* drug that is commonly used in clinical practice. But Punarnva has not been mentioned in *soth-har gana*. *Soth-har gana* includes *Dashmool Dravya*. So in this study, the effect of *Shoth-har Mahakashya* and *Punarnvastak Kwath* has been assessed in managing *Pada Shotha* in old age patients. A total of 10 patients of *Pada Shoth* were randomly selected from Kayachikitsa OPD at SAMC & H, Aligarh, divided into two groups for the study. The study duration was 2 weeks and it was found that *Punarnvastak Kwath* gave better results in the first week but *Shoth-har Mahakashaya* was better for long-term use in relieving the symptoms.

Keywords: *Shoth; Punarnvastak Kwath Dashmool Kwath; Shoth-har Mahakashaya.*

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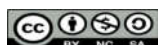
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INTRODUCTION

There are countless ailments in the world, but a few are very common and diseases. Lifestyle disorders are on the rise, and one of the most common complaints from patients is Pada-Shotha, also known as pedal edema. In modern medicine, edema is considered a symptom rather than a disease. Edema refers to excessive fluid accumulation within the interstitial space or the cavities of the body. *Pada-Shotha* can have multiple causes, but regardless of the cause, the general treatment involves diuretic and anti-inflammatory drugs.



Epidemiology¹

The most common cause of peripheral edema in patients over 50 years of age is venous insufficiency. It is related to aging, but many other underlying co-morbid conditions like heart failure, renal failure, liver failure, and trauma can affect any age group. Peripheral edema can also be commonly observed in pregnancy.

A very few research studies are available on prevalence of lower limb edema in India and abroad. One of the study showed in us peripheral lower limb edema among older adults U.S. was 20.0%, 19.4%, 19.0%, 19.0%, and 19.1%, in 2000, 2004, 2008, 2012, and 2016, respectively.¹

This study showed edema was mostly associated with older age, women, minority race, low socioeconomic class, overweight status, low activity, mobility limitations and co morbid conditions like diabetes and hypertension.

It spreads all over the world, more in Europe. Causative factors are generally liver, heart, kidney disorders, nutritional deficiency, and drugs side effects.

Pedal edema is just an alarm bell for disease like varicose veins, ulcers, skin breakdown, or a liver, kidney, or heart issues that should be addressed right away. If edema is treated at an appropriate time, it may lead to complications. Edema may also increase for older adult's fall risks.

Edema in Ayurved can be correlated with *Sopha*, *Sotha* and *Svayathu*. The Sanskrit meaning of *Sopha* is *gati vrudhi* (excessive movement of fluid). The other synonyms are *Svayathu* & *Sotha*, which vary according to the severity. The mild edema can be regarded as *Sopha*, moderate edematous is *Svayathu* and severe edematous manifestation is *Sotha*.

The term *Sotha* & *Svayathu* has been used by Charak whereas *Susruta* & *Bhela* mostly used the term *Sopha*. In simple terms, it can be referred to as swelling. *Vata* is the prime dosa in the manifestation of *Sopha*. So, the origin of *Sopha* is *Pakoashya*.

Acharya charaka had classified the *sotha* into 3 types^{2,3}

1. *Sarvanga sotha* (Generalized edema or Anasarca, which may result due to the *vikrithi* of *Hridaya*, *Yakrit* & *Vrikkas*.)
2. *Ardhanga sotha*: This one is milder than the *sarvang sotha*, when these organs are affected to some extent only. It is a *Sotha* that occurs in some parts of the body. When *Hridaya* & *Yakrit* are affected, the *Sotha* is in the lower &

middle parts of the body & when the *Vrikkas* are involved with the upper part of body is affected. In these two kinds of *sotha*, the general symptoms of the disease are more noticeable than the swelling.

3. *Ekanga sotha* affects one part of the body and it is of limited pathology. Hence the *sotha* can appear anywhere in the body.

Ayurvedic references have shown it as a disease entity by explaining the following *Samprapti*:

Vata dosha gets vitiated & pushes out the increased *Rakta*, *Pitta*, & *Kapha* to exterior (*twak*) by blocking their channels & produces swelling of skin and muscle (*twak*, *mamsa*), it is called *utsedh*, *samhata*, *sotha* because of increased size.

*Punarnvastak kwath*⁴ is commonly prescribed medicine for Shoth as it has been mentioned as *Soth-hara* in Ayurveda classics. It consist of 8 drugs or constituents in equal proportion, so it is called *Punarnava-ashtaka Kwatha* as its main content or constituent. The eight drugs are: 1. *Punarnava* (*Mula*), 2. *Nimba* (*Twak*), 3. *Patol* (*Patra*), 4. *Kutki* (*Mula*), 5. *Sunthi*, 6. *Guduchi*, 7. *Devadaru*, 8. *Haritaki*.

Acharya Charaka has put forth the *Shoth-Hara Gana* which consist of *Doshamoola* only. *Patala*, *Agnimantha*, *Bilva*, *Shyonaka*, *Kashmariya*, *Kantakari*, *Brihati*, *Shalaparni*, *Prishaniparni* and *Goksura* are included as ten drugs under this *Mahakashaya*.⁵ These 10 medicines are effective individually, work together, and result in enhanced output.

However *Punarnva* has not been included in *Shoth-hara Gana*. In *Shoth-har gana dashmool dravyas*, has been mentioned. so this study was carried out to assess the efficacy of *dashmool kwath* over *punarnvastak kwath* in management of *pada shoth*.

OBJECTIVES OF THE STUDY

- ✓ To assess the efficacy of *Punarnvastak kwath* in the management of *Ubhay Pada-Shoth*.
- ✓ To assess the efficacy of *Shoth-Har Mahakashaya* in the management of *Ubhay Pad-Shoth*.
- ✓ To assess, whether *Shoth-Har Mahakashaya* is better than *Punarnvastak kwath* in management of *Ubhay Pada Shoth*.

Clinical Plan

Sample: All together 10 patients of *Ubhay Pada Shoth* were selected randomly from O.P.D of SAMC & H, Aligarh.

Selection criteria

Diagnosis: International ranking; 2024 ICD-10 CM–R60 Edema, not elsewhere classified-Ankle edema⁶

Subjective Parameters

- ✓ *Utsedh*
- ✓ *Ushma*
- ✓ *Gauravam*
- ✓ *Vaivarnya*

Objective Parameters

Girth Measurement around Ankle Joint by Figure of eight method

Figure-of-Eight method^{7,8,9}

Each subject was seated comfortably in a long sitting position with both feet expanded past the conclusion on the plinth to the level of the mid calf. The cleared out leg was marginally flexed over a support with a distance across of 15 cm. The cleared out lower leg was kept up in an unbiased dorsi-flexion position because it was measured utilizing the figure of eight strategy. The tape degree is wrapped around the lower leg along the taking after course:

1. the starting of the tape is put halfway between the Tibialis front ligament and sidelong Malleolus.
2. the tape is drawn medially over the instep and set fair distal to the tuberosity of the navicular.
3. the tape is pulled over the curve and up fair proximal to the base of the 5th metatarsal.
4. drag the tape over the Tibialis front ligament.
5. proceed the tape around the lower leg joint fair distal to the distal tip of the average Malleolus.
6. drag the tape over the Achilles ligament.

7. put the tape fair distal to the distal tip of the sidelong Malleolus.
8. conclusion the estimation at the begining of the tape.

A tension-controlled measuring tape is favored to wrap around the ankle/foot or hand for the estimation of edema than standard tape.

Inclusive Criteria

- Patient should be diagnosed as per the classical symptoms of Ubhay Pada Shoth.
- Both the gender
- Age group: 50-60 yrs
- Duration - 1 month
- Pitting edema

Exclusive Criteria

- H/o Trauma
- Patients suffering from any major systemic disorder.
- Age below 50 and above 60 yrs
- Non Pitting edema

Based on below gradings results can be estimated

Utsedha	Absent - 0, Mild - 1, Moderate-2, Severe-3
Ushma	Absent - 0, Mild - 1, Moderate-2, Severe-3
Gourvam	Absent - 0, Mild - 1, Moderate- 2, Severe-3
Vivarnya	Absent - 0, Mild - 1, Moderate-2, Severe-3

Measurement of girth

At Examination-3, 5% improvement-2, 10% improvement-1, More than 10% improvement-0 Intervention:

Table 1: Plan of study

Group	No. of Patients	Drug	Dose	Duration
A	05	Punarnvastak Kwath	50 ml in divided doses/on empty stomach	2 weeeeks
B	05	Shoth-har Mahakashaya	50 ml in divided doses/on empty stomach	2 weeks

The Results are assessed by following criteria;
76%-100% - Complete healing of symptoms is considered as Good.

51%-75% - Of relief of symptoms is considered as Moderate.
<50% - Of relief of symptoms or No relief of symptoms is considered as poor.

RESULTS

Table 2: Group A - Effect of *Punarnvastak Kwath*

Symptoms	BT Score	AT (after 7 days)	AT (after 14 days)
Utsedha	14	10	11
Ushma	12	09	09
Gouravam	16	10	10
Vivarnyam	18	11	10
Measurement of girth	12	6	8

Table 3: Group B - Effect of *Shothar Mahakashaya*

Symptoms	BT Score	AT (after 7 days)	AT (after 14 days)
Utsedha	15	11	9
Ushma	11	10	8
Gouravam	17	15	9
Vivarnyam	15	12	9
Measurement of girth	11	9	6

Table 4: Results in Group A

Results	No. patients	Percentage
Good/complete relief	2	60%
Moderate relief	3	40%
Pain/ No Relief	0	0%

Table 5: Results in Group B

Results	No. patients	Percentage
Good/complete relief	4	80%
Moderate relief	1	20%
Pain/ No Relief	0	0%



Fig. 1: Figure-of-eight measurement is used to monitor edema¹⁰

DISCUSSION

Discussion on observations

Out of the ten patients taken for study 8 patients were female above the age of 50 years with no known measure systemic cause. Out of 10 patients 7 were vegetarian and 3 were non-vegetarian. From this it can be interoperated that *Pada Shoth* is more common in females as compared to males of same age group. *Pada shoth* is most frequently found between the age of 50-60 yrs. No specific cause was found for edema in these patients.

Probable mode of action of Shoth-Har Mahakashaya/Dashmool Kwath

Dashmoola is thought to be one of the most powerful combinations of several plants utilized in Ayurveda. As per the properties of Dashamoola, it helps to pacify *Vata dosha* and balances *vata and kapha*. Is a group of ten herbs, Bilva, Patala, Agnimantha, Shyonaka, Gambhari, Brahati, Gokharu, Kantakari, Prishniparni, Shalaparni. As per the research Dashmool has an anti-inflammatory, analgesic, and anti-platelet effects comparable to that of aspirin.¹¹

In the Ayurvedic system of medicine it is used as analgesic, antiarthritic, against cough, rheumatism, etc. Many of these ingredients have been evaluated in experimental models of inflammation and pain and have shown to possess anti-inflammatory and analgesic activities for *e.g.*, *Oroxylum indicum*, *Desmodium angeticum*, *Premna integrifolia L.* and *Gmelina arborea*, *Aegle Marmelos*, *T. terrestris*, *Solanum xanthocarpum*, *Premna Integrifolia*.¹²

Probable action of Punarnava Kwath

Due to *Laghu* (lightness) & *Ruksha* (dry) *Guna*, this decoction possesses the *Lekhan* (scrapping) property that brings lightness and clears obstruction by removing vitiated *kapha*. That's why the patients got relief in symptoms like *Angamarda* and *Angavsad*. *Tikta rasa* does *Pittashaman*, *Kashaya rasa* absorbs the *kapha*, *Katu rasa* clears the obstruction of *kapha* and *Madhur Vipaka* of *Shunthi* soothes *Pitta*. *Ushna virya* does *Abhyantar Sweden karma* (Internal sudation), as a result stickled *Dosha* (*leen Dosha*) of *Shakha* gets liquefied & travels towards *koshtha*. The herbs like *Haritaki* and *katuka* expels them through anus. *Ushna virya* helps to pacify *kapha* and *vata* and helps in digestion by *Aampachan*. Due to the special combination of these herbs, *Shaman* is possible with *Punarnastak kwath*. In addition to that it also does bio purification through urination & defecation by the herbs like *Punarnava* & *Katuki* respectively.

Discussion on results

As per the results, *Punarnvastak Kwath* showed good results in the first week but it was observed that patients taking *Shoth-har Mahakashaya* showed good results. It is not appropriate to conclude anything on this short study but still, if the properties of both the *Mahakashaya* are studied in detail the following facts can be interpreted.

This combination of ten roots is widely utilized in Ayurveda, effectively acting on the *Vata Dosha* and helping to reduce its aggravation. *Shoth-har mahakashaya* is mainly *vata-har* in nature and balances *vata* and *kapha* in the body.

But *Punarnvastak Kwath* has *aampachak* and *kapha-har* properties. It is *laghu* and *ruksha* and has *lekhan* properties, that why *Punarnvastak Kwath* may in long-term use lead to *Vata vriddhi* mainly in Oldely people.

CONCLUSION

In this clinical study, the *Shoth-Har Mahakashaya* showed good results after two weeks of treatment compared to *Punarnvastak Kwath*. *Punarnvastak Kwath* showed better results than *Shoth-har Mahakashaya* after one week of treatment.

Hence, it can be concluded that *Shoth-har Mahakashaya* is a better *Shoth-har* formulation than *Punarnvastak Kwath* for long-term treatment. However, the study should be carried out on a large sample to check the authenticity of this fact.

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