



MODIFICATION OF “UPANAHA SWEDAN PROCESS” IN ARTICULAR DISEASES

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ABSTRACT

Background: Articular disorders lead to joint pain which sometimes become unbearable to the patient. The standard care of treatment for articular diseases includes oral medicines, local application of anti inflammatory analgesic drugs, physiotherapy and eventually surgical management which may not be economically suitable for the mass population. Most of the patients suffering from Articular and Periarticular diseases do not opt for surgical interventions. Apart from invasive and costly treatments *Ayurved* science has solutions like *Snehan*, *Swedana karmas* along with per oral medication for the same. *Upanah Swedan* is one of the four *swedan* types described by *Ashtang Hruday* (classical text book from *Bruhatrayi*). The classical method of *Upanaha Swedan* has been modified in this experiment.

Objectives: To enhance the use and acceptability of *Upanaha Swedana* by patients and *Vaidyas* with the convenient method.

Methods: Plastic Soft wrapper is used as the enclosure for the *Swedan Dravyas* instead of the classical method of using leather, silk, cotton or woollen enclosure. The current study is carried with three different methods in 27 patients.

Results: 27 patients were subjected to the new technique for 15 sittings each. The modification of the procedure has been tried for total 405 sittings. The *Swedan Dravya* remained undisturbed till 12 hrs without leakage. The patient could perform his daily non strenuous activities well with reduction in the symptoms.

Discussion: The modification in the classical method of *Upanaha Swedana* was found to be more convenient for the patients which ultimately resulted in better compliance and relief of symptoms. It could prevent the inconvenience caused by leakage of the drugs and drug odor which is likely to occur in conventional *Upanaha Swedana* method and it is affordable.

Conclusion: After scrutinizing the compiled data, we can conclude that, this modified method of *Upanaha Swedana* is more convenient than the traditional method and affordable too.

Keywords: *Upanah Swedan*, *Ayurvedic Bandage-Plaster*, Articular Periarticular Disease

INTRODUCTION: The degeneration of articular cartilage as a part of the clinical sign of osteoarthritis is one of the most common causes of pain and disability in Articular Diseases. Accidental injury to joints can result into development of post traumatic arthritis¹. Articular disorders are

characterized by joint pain that is exacerbated by active and passive movement and by reduced range of motion; joint pain may be accompanied by joint effusion, synovial thickening, joint deformity or instability, crepitation, clicking, popping or locking. Common

periarticular disorders include gout, rheumatoid arthritis, bursitis, tendinitis, polymyalgia, fibromyalgia, and enthesopathies (inflammation of tendinous or ligamentous attachments to bone)². Articular and Periarticular diseases are collectively considered as *Sandhivat* as per Ayurvedic classical texts.

The medicinal standard care of treatment for articular diseases includes per oral and topical NSAIDs, calcium supplements, cartilage healing drugs, cold compression therapy, fomentation by heating pads or infrared light and physiotherapy. The surgical management comprises of Autologous Chondrocyte Transplantation (ACI), Cell-based Cartilage Resurfacing, Meniscus Transplant, Microfracture, Osteochondral Allograft and Total Knee Joint Replacement; which may not be economically suitable for the mass population. Most of the patients suffering from Articular and Periarticular diseases do not opt for surgical interventions. Rather they prefer non invasive treatments for the same.

Although the patient opt for the standard care of treatment; as the articular cartilages, ligaments, tendons, meniscus are avascular parts of the joints; the healing process is slow. The standard care of treatment is having its own limitations.

OUR SOLUTION: Ayurved science has solution to treat articular and periarticular diseases (*Sandhivat*) which is non-invasive and cost effective. Oral *Vataghna* medicines, *Panchakarma* treatment, local applications like *Snehana* and *Swedana* are proved effective in management of arthritis.

Upanah Swedan is one the four *swedan* types described by *AshtangHruday*³ and it is the effective modality in management of inflammation, contractures, stiffness,

numbness and pain in Articular and Periarticular diseases. As per classical texts, hot *Swedan Dravyas* are fastened on the affected area with leather, woollen or silk enclosure and thread for the period of twelve hours³. The drugs commonly used for *Upanaha* include the *dravyas* like *Yava*, *Kulattha*, *Misherya*, *Erandabeej*, *Vacha*, *Til seeds*, Wheat which are cooked in the form of *Krushara (Khichadi)* or *Utkarika (Paratha)* and are tied over the affected joint⁴. The drugs in the form of powder or leaf are fastened as herbal paste (*Kalka*) over the affected area. The chopped meat (*Vesvar*) cooked in herbal decoction or milk is also used as *Upanaha Dravya*; especially in gout⁵. It acts as both; *Snehan* and *Swedan Dravyas*.

The principle behind the different types of classical *Swedan* modalities is to provide energy to the affected area in various forms of heat so that the anti-inflammatory and healing process is augmented which results into reduction of pain and immobility. Ayurvedic classical texts have described the modalities which includes combination of *Snehan* and *Swedan* process to happen simultaneously in most of the *Chikitsa* (i.e. Treatment) *Adhyayas* (i.e. Chapters). Amongst the four types of *swedan* (*Tap Sweda*, *Upanaha Sweda*, *Ushma Sweda*, *Drava Sweda*) only *Upanaha Swedan* modality holds the *Swedan Dravyas* on the affected part for the longest period of time. The pharmacological action of the drugs occurs as per *Samanya Vishesh Siddhant*. The drugs and the affected tissue get more time to interact with each other for the healing process; especially to the avascular parts of the joint.

NEED OF MODIFICATION: Although effective; it has not been widely used in clinical practice because of the tedious

classical method and chances of leakage through its enclosure. It is the challenge faced by the *Vaidyas* and the patients to hold it for the period of 12 hrs. The Patient may have to be immobile because of the process so as to avoid leakage. The classical method of *Upanaha Swedan* has been modified in the experiment for greater acceptability by patients and *Vaidyas*.

AIM AND OBJECTIVES: To enhance the use and acceptability of *Upanaha Swedana* by patients and *Vaidyas* with the convenient method.

STUDY CENTRE NAME: Ayurved Retreat Hospital, Golavli, Kalyan-Shil Road, Dombivali (E)

METHODS & MATERIALS:

Plastic Soft Wrapper i.e. the most flexible, thin, plastic sheeting film having tensile strength and used for packing. It is more pliable and softer and food quality sheets are used for temporary packing of food items in the food industry.

SPECIFICATIONS OF SOFT WRAPPER:

Material: LLDPE (Linear Low Density Polyethylene)

Type: Stretch Film

Usage: Packaging Film, Manual use

Feature: Moisture Proof

Hardness: Soft

Processing Type: Casting

Transparency: Transparent

Place of Origin: Guangdong, China (Mainland)

Color: Transparent

Length: 10 m -300m

Thickness: 18 microns

Width: 300 – 450 mm

In modified "*Upanaha*"; 12 inch wide plastic soft wrapper is used as the enclosure for the *Swedan Dravyas* instead of the classical method of using leather,

silk, cotton or woollen enclosure. The F.D.A approved soft wrapper is easily available in the market. Cello tape is used in the place of conventional string to hold it tightly.

The hot *Swedan-Dravyas* are spread over the plastic soft wrapper keeping 1 inch margin free from both the sides and wrapped over the affected area. Both side bare margins get stuck to the patient's skin. The soft wrapper is then wrapped 8 to 10 times one over another till it gets enough tough to hold the *Swedan* drugs over the affected area for 12 hrs. The soft wrapper is finally wrapped in such a way so that it will cover and hold the *Swedan Dravya* on the affected area and the remaining 1 inch margin of the wrapper will get stuck to the adjacent skin. The margins are sealed by cello tape. The patients were dressed either in morning before 10 am or in the evening between 6 pm to 10 pm so as to adhere to the time span of 12 hrs. of the classical procedure. The patient is advised to visit the O.P.D. after 12 hrs for removal of the dressing. The *swedandravya* can be kept in the refrigerator and reused for consecutive 3 days.

The current study is carried with three different methods in 27 patients.

- 1) *Krushara* prepared with *Yava, Mash, Wheat grains, Til, Erandbeej* n=9
- 2) *Kalka* of *Nirgundi, Shigru, Erandpatra, Vacha, Shunthi* n=12
- 3) *Vesvar* prepared by goat meat cooked in *Dashamool Kwath*. n=6
- 4) Male : n = 12 ; Female ; n = 15

INCLUSION CRITERIA:

- I. Both male and female patients
- II. Age between 40 to 70 years,
- III. Presenting with clinical signs and symptoms of *Sandhivata*, viz. *Shoola*(joint pain), *Shotha* (joint-

- swelling), *Stambha* (stiffness), *Sparshasahatva* (tenderness), *Sandhishabda* (crepitus), *Akunchanaprasaranavedana* (pain during flexion and extension of the joint)
- IV. Patients having the symptoms > 1month.
- V. Patients without any anatomical deformity were included.
- VI. Patients willing to adhere to the procedure.

EXCLUSION CRITERIA:

- I. Patients suffering from uncontrolled major illnesses like diabetes, hypertension, heart disease.
- II. Joint pathologies other than OA (psoriatic arthritis, gouty arthritis, systemic lupus erythematosus, bone TB and CA)
- III. The patients having other serious systemic disorders.

CRITERIA FOR ASSESSMENT:

Pain

Gradation of pain by visual analogue scale

- 1-1 - No Pain
 2-3 - Mild
 4-5 - Uncomfortable

- 6-7 - Distressing
 8-9 - Intense
 10 - Worse

Swelling

- 1 - Nil
 2 - Mild tenderness, causing patient to wince on digital pressure
 3 - Moderate tenderness, causing patient to wince on digital pressure
 4 - Severe tenderness, patient does not allow to touch.

Stiffness

- 1 - Nil
 2 -Mild
 3 -Moderate
 4 -Severe - Movements of leg impossible

Restriction of Movements

- 1 - Absence of movement restriction
 2 -< 25% restriction of the movements
 3 -25-50% restriction of movements
 4 -> 50% restriction of movements

RESULTS: 27 patients were subjected to the new technique for 15 sittings each. The modification of the procedure has been tried for total 405 sittings.

Table No.1 showing effect of Modified UpanahaSwedan in Articular Diseases:

Symptoms	Mean±SD		Paired t –Test
	Before Treatment	After Treatment	
Pain	6.46 ± 0.93	2.14 ± 0.66	4.32 ± 1.07, t=23.67 p<0.001
Swelling	1.15 ± 0.56	0.65 ± 0.60	0.50 ± 0.50, t=17.23 p<0.001
Stiffness	2.68 ± 0.68	1.15 ± 0.36	1.53 ± 0.70, t=12.62 p<0.001
Restriction of Movements	3.25 ± 0.41	1.60 ± 0.50	1.65 ± 0.69, t=13.90 p<0.001

The *Swedan Dravya* remained undisturbed till 12 hrs. without leakage. The patient could perform his daily non strenuous

activities well with reduction in the symptoms. No adverse event has been recorded till the date.

DISCUSSION: The modification in the classical method of *Upanaha* was found to be more convenient for the patients who ultimately resulted in better compliance and relief of symptoms. It could prevent the inconvenience of the odour to the patients which are otherwise caused by particular odour of the *swedan* drugs in classical method. The cost of the enclosure per sitting is not more than fifteen rupees. It can further reduce, if the plastic soft wrapper is purchased in wholesale. Wide

acceptance of *UpanahSwedan* by *Vaidyavarga* and the patients will lead to radicle cure of slow healing fractures of bones, tendons, ligaments and meniscal injuries. It can develop newer tools in Ayurvedic Bandage or Plasters with different materials.

CONCLUSION: Study reveals that, this modified method of *upanaha swedana* is very convenient and affordable for patients.

Plastic Soft Wrapper-LLDPE



Upanaha Swedana Drug



Procedure of Upanaha Dressing



Final Upanaha Dressing



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Source of support: Nil Conflict of interest: None Declared

Cite this Article as : [Palshetkar Rahul D et al : Modification of "Upanaha Swedana Process" in Articular Diseases] www.ijaar.in : IJAAR VOLUME IV ISSUE VI JAN -FEB 2020 Page No: 537-542