

## “To study the effectiveness of proper *Oleation (Samyaka Snehana)* over Serum Electrolytes ”

### 1. Introduction

*Snehapana* is one of the Purvakarma therapies in Ayurveda, a system of medicine in India. Sneha means Fat either Oil or Ghee. *Snehapana* is a prerequisite in Panchakarma. The ghee is made from clarified butter (obtained from cow's milk) and it is boiled with various herbs to make a specific disease oriented medicine of Sneha. *Snehapana* is process of intake of fat in specified dose for stipulated duration. The entire procedure of *Śhodhana* (elimination) depends upon the proper mobilization of humors (*Doshas*) from the periphery (*Śhākhā*) to gastrointestinal tract (*Koshta*). This is to be achieved with the help of *Snehana* which brings liquefaction of *dosha* for *dosha* migration. The *sneha* with its qualities of liquefying the *dosha* segregated in the tissues and migrates it in to *koshta* i.e. in to 15 organs of the trunk and its corresponding circulations. The treatment lasts between five and seven days depending on the condition of the patient and the illness being treated [1].

### 2. Review of literature

In all compendia – Ayurved and modern preferably in following format in chronological order.

Text	Sthan	Adhyaya	Topic	Shloka no	Remarks
<i>Charak samhita</i>	<i>Sutrasthana</i>	Chapter 13. <i>Snehadhyaya</i>	<i>Dosha Migration</i>	24	
Sushruta s	Chikitsasthana	Chapter 13. <i>Snehadhyaya</i>			
Asthang hrudaya amhita	Sutrasthana	chapter 16	Samyaka snehana lakshana	verse 30	
Lavekar G.S. A Practical	-	Chapter 1	Classification of <i>Snehapana</i>	Page no.5	-

Handbook Of Panchakar ma Procedures					
Vasant patil,	-	Chapter 3	Total quantity for <i>Snehapana</i>		-

Internal administration of lipid substance is a preparatory step of purificatory therapies such as Vamana and Virechana. Lipid is given in specific increasing dose pattern for three to seven days determined by the nature of Koshta and the Agni of individual. Estimated quantity of lipid required for *snehapana* ranges from 600 to 1200 ml for entire duration[2]. Abhyantara Snehana is again classified into Achchha Pana and Vicharana. Achchha Pana is the oral intake of medicated or non medicated Sneha (Ghee / oil) without mixing with food or other medicinal preparations and used for the purpose of softening and lubricating of body tissues prior to the Shodhana therapy[3]. Charaka defines Snehana as the process which impart Sneha (unctuousness), Vishyanda, Mardava (softness) and produces Kleda (fluid) in the body[4]. Here Chakrapani attempts to elucidate the meaning of Vishyanda as Vileyana (solubility)<sup>5</sup>. Acharya Charaka expounds that Sneha attributes life, complexion, strength, nourishment, vitality etc. to the body and removes the Tri Doshas, which were in the morbid state[6]. The persons indicated [7] for Snehana are –

- Who have to undergo Swedana and Shodhana therapies
- Those who indulge more in wine, women and exercise.
- Persons having Raktakshaya and Sukrashaya.
- Who are suffering from Vata disorders and eye diseases like Abhishyanda and Timira.
- Old persons, children, debilitated persons.

The following are contraindications for Snehana Therapy [8].

- Who have increased levels of Kapha and Meda

- Immediately after performing Nasya, Basti, Virechana etc.
- Persons who are Sthula or even very krisha
- Who are suffering from problems like Trishna, Murchha,

### **3.Previous studies conducted**

1.Reena Kulkarni, Concepts and Prospects of *Snehapana* in Children, Joinsysmed 2015 vol 3(4), pp 175-179.

3.Katara et al. Critical Review Of Snehana Karma (Oleation Therapy), UJAHM 2014, 02 (01): Page 14-17

3.Patil et.al.Effect of snehpana over lipid-Critical review,Ancient science of life,vol.29,No.2,(29),page32-39

No work has been done over effect of *Snehpana* over serum electrolytes.

### **4.Need of the study**

Many times the *Snehapana* is used as supportive treatment for elimination of the Dosha. But which changes are brought in the blood circulation is not authentically established. In gross it is understood the *dosha* migration as the transportation of bio waste in to GIT through *Splanchnic* pooling, which will be eliminated either oral or rectal routes.

It is herculean task to clarify these facts in terms of contemporary terminology and to decide whether among all these practices of *Snehapana* which is better to achieve *dosha* migration . It is need of hour to do standardization of *Snehana* procedures to induce objectivity, preciseness in its practices and to prove efficacy of *Sadya Snehapana* There by it is a need based study to evaluate the oleation effects of *Snehapana* over serum electrolytes.

### **5.Aims**

Evaluation of proper oleation(*Samyaka snehana*) effect over Serum Electrolytes

### **6.Objectives**

- To study *Samyaka Snehana* effect of *Sadya Snehapana* over Serum electrolytes (Na,Cl,K, Biocarbonate)

- To study *Samyaka Snehana* effect of *Arohi Snehapana* over Serum electrolytes (Na, Cl, K, Bicarbonate)
- To compare *Samyaka Snehana* effect of *Sadya Snehapana* over Serum electrolytes (Na, Cl, K, Bicarbonate)

## 7. Material:

- **Selection of Material:** *Go Ghrita* (Cow Ghee) and *Saindhava* (Rock salt ) and will be procured from local reliable sources and will be authenticated.
- **Composition of Material:**
  - Group A: *Sadya Snehapana* (Plain Cow Ghee + Saindhava lavana)
  - Group B: *Arohi Snehapana* (Plain Cow Ghee)
- **Toxicity studies:** No such type of study observed since cow ghee and *Saindhava* are edible.
- **Preparation of Material:**

No specific preparation is required. Where in the *Patrapaka* of the *Sneha* (only making ghee lukewarm by water bath method) will be done before its administration.

## 8. Methods:

- **Place:** Volunteers will be enrolled from Panchakarma OPD, Mahatma Gandhi Ayurved College, Hospital & Research centre, Salod (H.), Wardha.
- **Sample size:** 100 subjects (50 for each group )
- **Sample selection techniques:** Randomization (Closed envelop method)
- **Groups:** 2 groups
  - Group A: *Sadya Snehapana* (50 samples)
  - Group B: *Arohi Snehapana* (50 samples)
- **Study design:** Double arm study

Group	Group A	Group B
Sample size	50 samples	50 samples
Intervention	<i>Sadya Snehapana</i>	<i>Arohi Snehapana</i>

<b>Dose</b>	150 ml in one day	24 -48 -72,96,120,144 1nd 168 ml consecutively maximum for7 days till formation of <i>Samyaka Snehana Laksahna</i>
<b>Duration</b>	1 day	maximum for7 days
<b>Follow up period</b>	3 days	3 days
<b>Total duration</b>	4 days	10 days

- **Study type:** Interventional
- **Inclusion Criterion:**
  - o Volunteers including both sexes having age between 18 to 48 years
  - o All Indicated persons for *Snehapana*
- **Exclusion Criterion**
  - o Known Subjects of renal or hepatic impairment
  - o Known cases of Diabetes Mellitus and Hypertension
  - o Pregnant and lactating women
  - o Who have aversion to fat consumption
- **Posology in details**
- **Safety study:** Pilot study has been done over 10 patients
- **Investigations proposed:** Serum electrolytes (Na,Cl,K, Biocarbonate)
- Any other departments expertise required: if yes furnish full details with consent and budget and name and address of institute -Nil
- o **Case definition:** Volunteers including both sexes having age between 18 to 48 years and indicated persons for *Snehapana* will be recruited for study.

## 9) Observations

- a) Subjective criterion
- *Vatanulomana* [9]

- *Snigdha varcha*
- *Mala Asamhati*
- *Gatra mardava*
- *Twak snigdhata*
- *Snehodweaga*
- *Klama*
- *Agnidipti*

b) Objective criterion

- Serum Sodium
- Serum Potassium
- Serum Chloride
- Serum Bio carbonate

**c. Assessment criterion of both parameters with proper Grading.**

**Assessment of Subjective criteria**

**Snigdhata grade assessment**

Total score of samyak snigdha lakshan is 50. After vigilantly analyzing the score of samyak snigdha lakshan, different grades of snigdhata have been framed by giving range of score.

Score	Snigdhata Grade
Less than 34	<b>Ayoga</b>
34-50	<b>Samyaka yog</b>
More than 50	<b>Atiyoga</b>

**Scoring Pattern-**

**1] Vatanulomana**

Lakshana		Score	
		Before snehana	After snehana
Upward movement of vata with excessive belching and flatulence all time	1		
Upward movement of vata with excessive belching and flatulence occasionally	2		

Mild flatulence and heaviness of abdomen occasionally	3		
Vatanuloman but absence of lightness of abdomen	4		
Vatanuloman and lightness of abdomen	5		

## 2] Purisha snigdha /Snigdha varcha

Lakshan		Before snehana	After snehana
Ruksha purisha (dry stool)	1		
Alpa sneha Purisha (Stool with less quantity of fat) which is enquired by feeling of slight greasing of finger while cleaning after defecation	2		
Madhyam Sneha Purisha (Stool with moderate quantity of fat) with feeling of moderate greasing of finger while cleaning after defecation	3		
Bahu sneha Purisha (Stool with large quantity of fat) and more greasing of finger along with spilling of sneha over clothes	4		
Kewala sneha Purisha (only fat excretion)	5		

## 3]Mala Asamhati (Bristol stool scale )

Lakshan		Before snehana	After snehana
Atishushka ( Too dry) and grathita ( Solidified)-separate hard lumps like nuts-difficult to pass	1		
Sausage shape but lumpy	2		
Like a sausage but crack on their surface	3		
Like a sausage like snake but smooth and soft	4		
Drava (Watery)soft blobs with clear cit edges (passess easily )	5		
Fluffy pieces with ragged edges with mushy stool	6		
Watery ,no solid pieces, entirely liquid	7		

## 4]Gatra mardava (Softness of skin )

Lakshana		Before snehana	After snehana
Absence of skin softness or roughness of skin	1		
Slight	2		

Moderate	3		
Excess	4		

### 5] Twaka snigdha (Oiliness of the skin )-Scratch test

Lakshan		Before snehana	After snehana
Dryness /roughness leading to criss cross visible cracking of skin remaining mostly	1		
Dryness or roughness bright white streaks on the skin remaining for a considerable time and generating itchings mostly	2		
Lining and even words can be written by nails i.e. visible dryness which forms mild dull white streaks after scratching on the skin which disappears after some time	3		
Faint line on scrubbing by nail and occasional dryness without winter season	4		
No line on scrubbing with nail and no dryness , presence of glossy skin other than winter	5		
Presence of glossy,shiny skin always	6		

### 6] Snehodvega

Lakshana	Score	Before snehana	After snehana
No Aversion i.e. Another sip of ghee would be nice	1		
Feeling of not eating more i.e. Alpa dwesha, yet the person can able to take ghee without force and without nausea	2		
Madhyama dwesha by tasting, person can able to take ghee on forcing but with feeling of nausea	3		
Bahu dwesha i.e. Nausea, vomiting on thought and sight of Sneha and tasting, person cant able to take at all	4		

### 7] Klama

Lakshana	Score	Before snehana	After snehana
No klama	1		
Occasionally feeling of lassitude without shrama and remains	2		



sometimes and vanishes			
Lassitude without shrama daily for sometimes	3		
Lassitude without shrama daily for long duration	4		
Always feel tired and have no enthusiasms	5		

### 8] *Agnidipti*

Scoring according to *Jeerna aahara Lkashana* present after 4-6 hours after taking food. They are *Itsaha ,Laghuta ,Udgarashuddhi.Kshut,Trishna pravrtti,Tathochita malosarga.*

#### a)*Jaranshakti*

Lakshana	Score	Before snehana	After snehana
Absent of all symptoms	1		
Presence of one symptom	2		
Presence of second symptoms	3		
Presence of three symptoms	4		
Presence of four symptoms	5		
Presence of all (five ) symptoms	6		

#### b)*Abhyavahara shakti*

Lakshana	Score	Before snehana	After snehana
Person not at all taking food	1		
Person taking food in less quantity once in a day	2		
Taking food in less quantity twice a day	3		
Taking food in moderate quantity twice a day	4		
Taking food in normal quantity twice a day	5		
Taking food in good quantity twice /thrice a day	6		

#### c) *Ruchi*

Lakshana	Score	Before snehana	After snehana

Totally unwilling for meal	1		
Unwilling for food but could take the meal	2		
Willing towards only most liking foods not to the other Aahara/Rasavishesha	3		
Willing towards only one among katu/Amla /Madhura food stuffs	4		
Willing towards some specific Aahara/Rasavishesha	5		
Equally willing towards all the bhojya padartha	6		

Assessments of the results will be done in the comparison of baseline data to the final and follow up data.

### **10.Statistical Analysis:**

Paired and Unpaired t test , Wilcoxon test will be used.

**11.Ethical Consideration:** Study will be start only after consideration of ethical clearance.

### **12. Withdrawal Criteria**

If any complications or any adverse event occur, patient will be shifted for routine conservative modern treatment and will be managed free of cost.

**13. Consent according to WHO Format -Attached**

**14. Information to patients enclosed for your reference:** Attached

### **15.References –**

1] <http://www.indiavideo.org/ayure da/snehapana-panchakarma754.php>

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3] Lavekar G.S. A Practical Handbook Of Panchakarma Procedures, 1<sup>st</sup> reprint, 2010, Central Council For Research In Ayurveda And Siddha Department of AYUSH, Ministry of Health & Family Welfare Government of India, p5.

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6] Agnivesha, Charaka Samhita, Ayurveda Dipika commenetary by Chakrapanidatta, Yadavji Trikamji Acharya, editor, New Delhi, Rastriya Samskrit Samsasthan, 2006, Sutra Sthana,1/88

7] Agnivesha, Charaka Samhita, Ayurveda Dipika commenetary by Chakrapanidatta, Yadavji Trikamji Acharya, editor, New Delhi, Rastriya Samskrit Samsasthan, 2006, Sutra Sthana, 13/52

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9] Paradakara Hari Sadasiva sastri editor. Astanga Hridaya of Vagbhata with Sarvangasundara Commentary of Arunadatta and Ayurveda rasayana of Hemadri on Sutrasthana chapter 16, verse 30 , Reprint edition ; ChaukhambaSurbharatiPrakashan, Varanasi 2010; P.250.

#### **16. Annexure :-**

Case Record form

#### **17. Proforma-Attached**

#### **18. Budget duly certified by Guide and HOD**

<b>Budget Proposal of Investigations</b>					
<b>Sr. No</b>	<b>Head</b>	<b>Cost per Unit</b>	<b>Sample Size</b>	<b>Total cost</b>	<b>Justification</b>
	<b>Investigations</b>				
1	CBC	10/-	100	1000/-	Once
2	ESR	10/-	100	1000/-	Once
4	S. Bilirubin	240/-	100	24000/-	Thrice times
	Serum Sodium Serum Potassium	120/-	100	36000/-	Thrice times
	Serum Chloride	80/-	100	24000	Thrice times
	Serum Biocarbonate	220/-	100	66000/-	Thrice times
<b>Total budget: 1,52,200</b>					
<b>Budget for trial medicines</b>					

S.N.	Required medicines	Quantity required per sample	Sample size	Total quantity in in Kilo Grams	Total cost	Justification
1	Plane ghrita	For group A-672gm	50	33.5	16,750/-	
		For group B-150 gm	50	7.5	3750/-	
2	Saindhava	For group B only-10gm	50	500gm	75	
<b>Total budget: 20,575</b>						

**Total Budget : 1,72,775 rupees only**

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