

## MANAGEMENT OF SARVANGA SOTHA WITH VARDHAMANA GUDAARDRAKA PRAYOGA - A PILOT STUDY

Dr. Rajimunnisa Begam Shaik<sup>1</sup> Dr. D.R. Sunil kumar<sup>2</sup>

<sup>1</sup>M.D. (Ayu), Vijayawada, Andhra Pradesh, India

<sup>2</sup>M.D. First Year, P.G. Department of K.C, Dr.B.R.K.R.Govt.Ayurvedic Medical College,  
Hyderabad, Telangana, India

### ABSTRACT

Health & disease are the 2 faces of a coin. The concept is to aid the human beings to provide healthy life & to prevent diseases. Oedema can be correlated to *sotha* on the basis of equivalent symptoms mentioned in the concerned literature. Oedema is a common pathological condition, neither limited to age group nor socio economical class of society. *Ayurvedic* management measures seem to be more satisfactory, because of their simplicity, applicability, easy availability & cost effective. Here the effect of *vardhamana gudaadraka prayoga* as *sotha hara* (anti inflammatory) has been mentioned in *charaka chikitsa*.<sup>1</sup> This drug is also used in *gulma, udara, arsas, prameha, swasa, peenasa, alasaka, mano vikaras, kasa, kamala, ajeerna* and *guda, adraka* has anti-inflammatory activity, it mainly act as *kapha hara*. The present study was aimed to assess the clinical effectiveness of *vardhamana gudaadraka prayoga* as *sotha hara* (anti inflammatory). Total 5 patients of *sarvanga sotha* were registered for the present study and were randomly selected from OP & IP of Dr. B.R.K.R. Govt. Ayurvedic College in one group. Fresh ginger with equal quantity of jaggery total of these 2 is  $\frac{1}{2}$  *pala*--- 1<sup>st</sup> day. Increasing the dose by  $\frac{1}{2}$  *pala* per day to the maximum of 5 *palas* (10<sup>th</sup> day). This 5 *palas* of dose should be continued from 11<sup>th</sup> day to 30<sup>th</sup> day administered to 5 patients, 3 patients got 60% of improvement from the swelling and 2 patients got 40% of improvement from the swelling (*sotha*).

**Keywords:** Oedema, *kapha hara, sarvanga sotha, vardhamana gudaadraka prayoga* etc.

### INTRODUCTION

No medicine even today has been created a goal about the vulnerability of the disease where it causes death explained in the name of *Arista lakshnas*, which are denoting the importance of medication & caution to the patient to come out of the suffering ailments. Among the countless number

of ailments in this world a few can be identified as very common & recurrently affecting. Where Oedema is also one of those. *Acharya charaka* had classified the *sotha* into 3 types 1) *Sarvanga sotha* (Generalized oedema or Anasarca, which may result due to the *vikrithi* of *Hridaya, Yakrit & Vrik-*

kas.) 2) *Ardhanga sotha* is a milder one to the above, when these organs are diseased to some extent only. It is a *sotha* which occurs in some parts of the body .When *Hridaya* & *yakrit* are affected the *sotha* is in lower & middle parts of the body & the upper part of the body is affected when the *vrikkas* are involved .In these two kinds the general symptoms are more marked than the swelling.3) *Ekanga sotha* may be due to one *dosha* or occurring in one area of the body .Hence the *sotha* can appear anywhere in the body. Oedema is mentioned in modern system of medicine as a symptom rather than a disease. *Ayurvedic* references have showed it is a disease entity by explaining the following *samprapthi*. *Vata dosha* get vitiated & pushes out the increased *Rakta*, *Pitta*, & *Kapha* to exterior (*twak*) by blocking their channels & produces swelling of skin & muscle (*twak*, *mamsa*) it is called *utseda samhata*, *sotha* in view of increased size .<sup>2</sup> *Sotha* can be correlated to oedema in modern science. Oedema is the medical term for excessive fluid accumulation with-

in the interstitial space or within the cavities of the body. Epidemiology; The highest annual incidence of oedema is 24.3/100 000 persons per year in Europe, 6.3/100 000 persons per year in Asia & Middle east .<sup>3</sup> Prevalence; Caused 30% of deaths by the end of the 20<sup>th</sup> century in most of the developed World. Mortality from oedema had been replaced by mortality from chronic illnesses. Such as heart disease, cancer & stroke. <sup>4</sup> Gender & age; Male & Female ratio is 2:1. Age group of 40 to 59 yrs is more prevalent.<sup>5</sup> International ranking; 2014 ICD-10 CM—N70-N77.<sup>6</sup> International distribution; It spreads all over the world, more in Europe. Causative factors; liver, heart, kidney disorders, nutritional deficiency etc,

#### OBJECTIVES OF THE STUDY:

To assess the efficacy of *Vardhamana gudaardraka prayoga* in the management of *sarvanga sotha*

#### CLINICAL PLAN:

All together 5 patients are selected randomly from O.P.D (P.G.K.C) of Dr .B.R.K.R Govt. *Ayurvedic* college. Hyderabad.

**Table no: 1** Showing the Subjective and Objective parameters

Subjective	Objective
<i>Utsedhana</i>	X –ray
<i>Ushma</i>	Serum creatinine
<i>Gouravam</i>	Serum albumin
<i>Vivarnyam</i>	Plasma albumin
<i>Chirottana prasamana</i>	Serum electrolytes
Pitting oedema/No pitting	Blood urea
Measurement of girth	Hb%

#### INCLUSIVE CRITERIA

- *Utsedhana*
- *Ushma*
- *Gouravam*
- *Vivarnyam*
- *Chirottana prasamana*
- Pitting oedema/No pitting
- Measurement of girth
- Patients with *sarvanga sotha*
- Both the gender
- Any age group
- Duration -1 month

## EXCLUSIVE CRITERIA

- Trauma
- Heenabalasya sarvagah
- Krisa
- Sotha at marma stana
- Upadrava yukta

## DISEASE REVIEW

### SOTHA NIRUKTHI

The word *sotha* is derived from the root “SAVAGATHOU BAHULAKATH PHA” it means instantly spreading.

### NIDHANA

- Kshara, amla, tikta, ushna padhardha sevana
- Ama, mruth, dadhi sevana.
- Gara visha
- Achesta
- Nacha dehasudhi
- Vishama prasuthi
- Mydhyopachara etc.,,,,,,,,,,

### SAMPRAPTHI

Samanya Samprapthi of *sodha* was explained by *charaka* in *chikitsa stana*,<sup>7</sup> and *visheshha samprapthi* was explained in *sutra stana*.<sup>8</sup>

- Dosha : Tridosha, Vatapradhan (Vyana)
- Dushya : Rasa, Rakta, Mansa, Meda
- Srotas : Rasavaha, Raktavaha,
- Mansavaha, Medavaha
- Agni : Rasadhatvagni mandya,
- Jalamahabhutagni mandya
- Udbhava sthana : Bahya sira
- Vyakti Sthana : Twak, Mansa
- Adhishthana : Ekanga, Sarvanga
- Vyadhimarga : Bahya, Abhyantara.

### TYPES;

1) According to the causes. 2) According to location 3) According to Pathogenesis  
*Nija, Agantuja Sarvanga, Ekanga Sarvatantra, Paratantra respectively.*

## SARVANGA SOTHA

*Shotha* when gets developed all over the body is considered as *Sarvanga Shotha*. Modern science has described it as Generalized or Systemic Oedema or Swelling. Depending upon its location in the body, i. e. upper, middle and lower part of the body, it can be also classified as is described in *Sushruta Samhita* as well as in *Madhav Nidana*.

### MODREN VIEW

*Oedema* results from the accumulation of excess fluid in the interstitial spaces or serous cavities.

### CLASIFFICATION

#### Depending on nature of fluid

- Inflammatory edema (due to increased vascular permeability)
- Non-inflammatory edema (due to osmotic or hydrostatic pressure imbalance)

#### Depending on site of collection;

##### Generalized edema

Due to transudation of salt and water, as in example of hypoproteinemic syndrome, congestive cardiac failure, acute glomerular nephritis, nephrotic syndrome, cirrhosis

##### Localized edema

Due to increased permeability of small blood vessels, e.g., infection, trauma, burns, allergy lymphatic obstruction, e.g. – malignancy, filariasis, chronic infection, venous obstruction, e.g. – thrombosis, malignant infiltration.

### Causes of Edema (Mnemonics) -THE LEAK OF VEINS

Tumor, Heart failure, Enteropathy (protein-losing), Liver failure, Endocrine (hypothyroidism, aldosterones, diabetes), Altitude sickness, Kidney disease (renal failure, nephrotic syndrome), Obstruction of lymphatics, Filariasis, Venous thrombosis, Ec-

lampsia / pregnancy, Iatrogenic , Nutritional deficiency, Sepsis / capillary leakage<sup>9</sup>

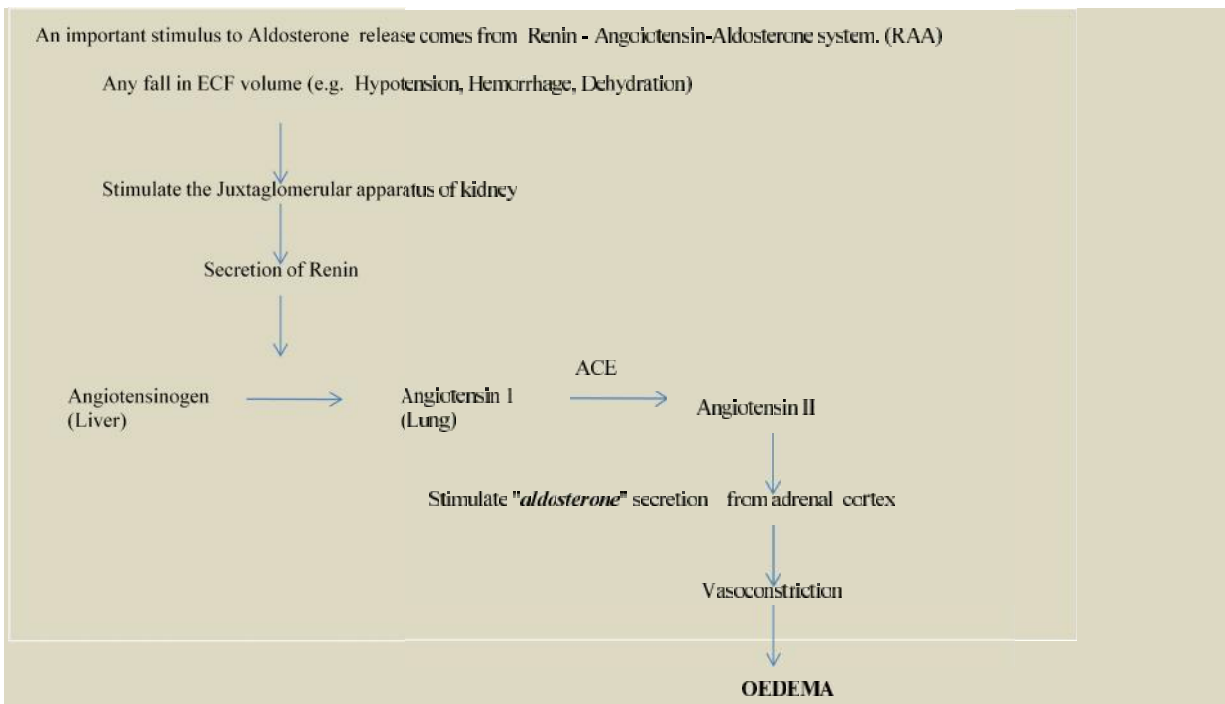
### General Principles in the formation of Interstitial Fluid

About 24 litres of fluid are filtered through the capillaries per day. 85% - reabsorbed into the *capillaries*. 15% - returned to the circulation via *lymphatics*. The formation of ISF is regulated according to the **Starling hypothesis**, which incorporates 5 factors –

- capillary hydrostatic pressure,
- interstitial tissue pressure,
- plasma oncotic pressure,
- endothelial permeability and lymphatic function



### Generalized Edema



- Na<sup>+</sup> is the most important osmotically active constituent of the ECF. The control of ECF volume ( & the formation of edema) mainly control by the factors that regulate the accumulation of Na<sup>+</sup> in the body and excretion of Na<sup>+</sup> by the kidneys.
- About 85% of filtered Na<sup>+</sup> is reabsorbed in proximal convoluted tubules.
- The remaining 15% is variably reabsorbed in the distal tubule, partly with Cl<sup>-</sup> ions and partly in exchange for K<sup>+</sup> and H<sup>+</sup> ions
- The regulation of sodium excretion is probably mainly through adjustment of this 15%.
- 'Aldosterone' effects on distal renal tubule, causing Na<sup>+</sup> reabsorption and K<sup>+</sup> excretion.

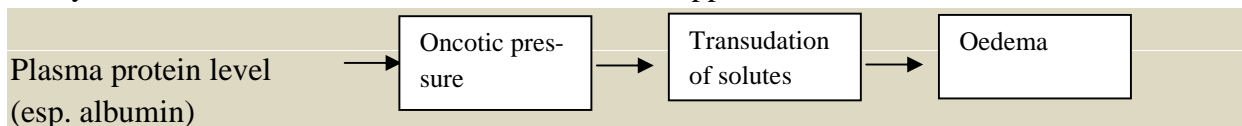
This effect is blocked by spironolactone.

## Hypoproteinemic State

- failure of synthesis
- protein malnutrition (Kwashiorkor)
- cirrhosis
- long lasting ill-health from many causes
- increased loss as in nephrotic syndrome.

- When serum albumin falls below 25 g/l, there is transudation of solutes (mainly salt and water) out of the capillaries into intercellular space.

When this compartment is expanded by about 10%, clinically evident edema appears.



## DIFFERENT DISEASES WHICH CAUSES GENERALIZED OEDEMA

### LEFT HEART FAILURE:

Heart failure may affect the right side, the left side, or both sides of the heart. The left side of the heart receives blood rich in oxygen from the lungs and pumps it to the remainder of the body. As the ability to pump blood forward from the left side of the heart is decreased, the remainder of the body does not receive enough oxygen especially when exercising. This results in fatigue. In addition, the pressure in the veins of the lung increases, which may cause fluid accumulation in the lung. This results in shortness of breath and pulmonary edema. Common causes of left-sided failure include the Drinking too much alcohol, Heart attack, Heart muscle infections. Right-sided heart failure occurs in about 1 in 20 people. Coronary artery disease is the most common cause of heart failure in the United States, but it can be a complication of other conditions. High blood pressure, Hypothyroidism, Leaking or narrow heart valves, any other disease that damages the heart muscle, Poor left-side heart function due to prior heart attacks. In children, common causes include heart birth defects such as abnormal heart valves, abnormal blood vessel connections, or viral infections. Left-sided heart

failure occurs in approximately 1 to 3 of every 100 people and becomes more prevalent with age.

### RIGHT HEART FAILURE;

Right-sided heart failure occurs in about 1 in 20 people. Coronary artery disease is the most common cause of heart failure in the United States, but it can be a complication of other conditions. Heart failure may affect the right side of the heart (right ventricle), the left side (left ventricle), or both sides. In right-sided heart failure, the right ventricle loses its pumping function, and blood may back up into other areas of the body, producing congestion. Congestion affects the liver, the gastrointestinal tract, and the limbs. In addition, the right ventricle may be unable to pump blood efficiently to the lungs and to the left ventricle.

### NEPHROTIC SYNDROME;

Heavy Proteinuria, Hypoalbuminuria which causes decreased plasma oncotic pressure leads to generalized oedema

### CIRRHOSIS;

Cirrhosis of liver causes plasma protein synthesis which causes decreased oncotic pressure causes generalized oedema.

### DRUG REVIEW;

*Vardhamana gudaardraka prayoga*

**“Prayojayedadrakanagara va tulyam gudenaardha palaabhi vridhaya maatraam param pancha palaani maasam-jeerne payo yusha rasascha baktam”**

- Fresh ginger with equal quantity of jiggery total of these 2 is ½ pala--- 1<sup>st</sup> day.
- Increasing the dose by ½ pala per day to the maximum of 5 palas (10<sup>th</sup> day).
- This 5palas of dose should be continued from 11<sup>th</sup> day to 30<sup>th</sup> day.
- Keeping on the diet of milk ,vegetable soup( or) meat soup &rice.<sup>10</sup>
- **Sunti & guda both are having anti inflammatory activity.**

**RESULTS:** Basing 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* and Presence of pitting absent-0, Mild- 1, Moderate-2, Severe-3

Measurement of girth - Normal-0, 5% above normal-1, 10% above normal-2, More than 10%-3

**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.

**Statistical analysis of results;**

**Table no 2:** Showing the before and after treatment scores of the parameters

Symptoms	BT SCORE	AT SCORE
<i>Utsedha</i>	14	5
<i>Ushma</i>	12	7
<i>Gouravam</i>	16	6
<i>Vivarnya</i>	18	11
<i>Chirottana prasamana</i>	10	4
Measurement of girth	10	4
Pitting	12	5

**Table no 3:** Showing the relation between number of patients and percentage of relief in parameters.

S.no	Intensity of swelling	No.of patients	Percentage
1	No swelling	3	60%
2	Mild swelling	2	40%
3	Moderate swelling	0	0
4	Severe swelling	0	0

**Table no 4:** Showing the overall percentage of relief.

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

Poor/No relief	0	0
----------------	---	---

## DISCUSSION

According to present Results 40% of patients belong to smokers & alcoholics. Out of 5 Patients 2 female & 3 are male having oedema in lower limbs & face. It is observed clinically the incidence of the disease is more prevalent in the age group 40 to 59 yrs. 3 Patients got maximum relief & 2 Patients got moderate relief.

## CONCLUSION

In this clinical study, the *VARDHAMANA GUDAARDRAKA PRAYOGA* showed highly significant anti inflammatory activity. *Puranaguda* is having *lagu guna, vata hara, pitta hara, patyakara anabhisandhi Mutrala*. According to *susrutha guda is adhi-kagunakari & atyantha patyakara. Sunti* is having *katu rasa, lagu, ruksha, teekshna guna, Ushna virya & madhura vipaka*. Pharmacological action of *sunti* is *kapha vata hara & sotha hara*.

## REFERENCES

1. Agnivesa; Caraka Samhita; redacted by Caraka and Drdhabala with Ayurveda Dipika commentary by Cakrapanidatta, Chikitsa stana 12<sup>th</sup> chapter, 47-48 slokas edited by Vaidya Yadavji Trikamji Acarya, 6<sup>th</sup> edition, 2008; Published by Caukhambha Surabharati Prakasana, Varanasi, Uttar Pradesh.
2. Agnivesa; Caraka Samhita; redacted by Caraka and Drdhabala with Ayurveda Dipika commentary by Cakrapanidatta; Chikitsa stana 12<sup>th</sup> cha. 8 sloka. Edited by Vaidya Yadavji Trikamji Acarya, 6<sup>th</sup> edition, 2008; Published by Caukhambha Surabharati Prakasana, Varanasi, Uttar Pradesh.
3. Ref ; <http://dx.doi.org>
4. Ref. [mpkb.org/home/pathogenesis/epidemiology](http://mpkb.org/home/pathogenesis/epidemiology).
5. Ref; [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov) ; pub med
6. Ref. [www.icd10data.com](http://www.icd10data.com)
7. Agnivesa; Caraka Samhita; redacted by Caraka and Drdhabala with Ayurveda Dipika commentary by Cakrapanidatta; Chikitsa stana. Edited by Vaidya Yadavji Trikamji Acarya, 6<sup>th</sup> edition, 2008; Published by Caukhambha Surabharati Prakasana, Varanasi, Uttar Pradesh.
8. Agnivesa; Caraka Samhita; redacted by Caraka and Drdhabala with Ayurveda Dipika commentary by Cakrapanidatta; Sutrastana 18<sup>th</sup> chapter. Edited by Vaidya Yadavji Trikamji Acarya, 6<sup>th</sup> edition, 2008; Published by Caukhambha Surabharati Prakasana, Varanasi, Uttar Pradesh.
9. II, 14<sup>th</sup> International edition, 1998, Mcgraw-Hill Book Co., Singapore. Harrison T R, et.al. Harrison's Principles of Internal Medicine, Vol I.
10. Agnivesa; Caraka Samhita; redacted by Caraka and Drdhabala with Ayurveda Dipika commentary by Cakrapanidatta; Chikitsa stana 12<sup>th</sup> cha. 47-48 sloka. Edited by Vaidya Yadavji Trikamji Acarya, 6<sup>th</sup> edition, 2008; Published by Caukhambha Surabharati Prakasana, Varanasi, Uttar Pradesh.

## CORRESPONDING AUTHOR

**Dr. Rajimunnisa Begam Shaik**

**Email:** [dr.razia.sk@gmail.com](mailto:dr.razia.sk@gmail.com)

**Source of Support:** Nil

**Conflict of Interest:** None Declared