



Research Article

CLINICAL STUDY TO EVALUATE THE EFFICACY OF SHATAVARI IN KARSHYA

Majumder Madhumita

Assistant Professor, Department of Roga Nidan Avam Vikriti Vigyan, G.B. Ayurvedic College, Rohtak, Haryana, India.

ABSTRACT

Purpose: *Karshya* is a clinical condition that can be correlated with under nutrition in which body gets emaciated gradually. Among the eight socially undesirable physical state mentioned by *Charak*, *Karshya* has been categorized under nutritional deficiency. Altered function of *Vayu* and *Agni* leads to insufficient production of *Rasa Dhatu*. *Uposhoshan* of *Rasa Dhatu* takes place leading to *Dhatu Kshaya* chronologically. Hence the patients of *Karshya* suffers from indigestion, malabsorption, defective metabolism. *Meda Dhatu* and *Mamsa Dhatu Kshaya* at microscopical level ultimately express its symptom macroscopically. So, the purpose of my study is to provide an Ayurvedic management and prove the efficacy of *Shatavari* in the management of *Karshya* which *Valya Vayasthanan*.

Method: 35 patients were diagnosed as *Karshya* from O.P.D G.B Ayurvedic college, on the basis of subjective and objective parameters which includes sign and symptoms and Anthropometric measurement respectively. Powder *Shatavari* was administered to every patient at the dose of 12 gm/day in two divided doses for 3 months. Anthropometric measurement like BMI, MUAC etc are computed before and after treatment.

Result: Significant reduction in sign and symptoms was found in almost all patients. Statistical analysis of anthropometric measurement of 35 patients showed highly significant where p value was <0.001.

Conclusion: *Karshya* can be efficiently and effectively managed with Ayurvedic medication and the complication be prevented.

KEYWORDS: *Karshya*, Under nutrition, *Shatavari*.

INTRODUCTION

Karshya is a disease in which the body get emaciated gradually. In treaties of Ayurveda *Karshya* is mentioned as an undesirable clinical condition because untreated cases of *Karshya* become susceptible to major diseases, like *Pleeha*, *Kas*, *Kshaya*, *Swas*, *Gulma*, *Arsha Udar*, *Grahani*.⁽¹⁾ Ultimately the patients of *Karshya* subjected to *Bala Hani* (loss of immunity) and proceed towards death⁽²⁾. Since pre-historic era the stalwarts of medicine were in search of the medicaments which prevent the disease affecting the general health of the community. In *Charak Samhita* eight physical states are described considering its unwanted clinical and social complications⁽³⁾. These undesirable diseases are hereditary, hormonal, and nutritional in origin. In course of time following the untired exploration of ancient physician, afterward the social or community medicine is developed. An approach is made to prevent and treat the disease that is based on the study of human heredity, environmental social structure and values. As per UNICEF Under nutrition is defined as the outcome of insufficient food intake and repeated infectious diseases. It includes being under weight and height from one's age (stunted growth) with associated vitamin and mineral deficiency. According to FAO reports there are about 460 million, i.e., 15 % of the world population excluding China who are malnourished, of which about 300 million live in South Asia constituting one third of the population. Globally priority is given to malnourished persons as kwashiorkor, marasmus, xerophthalmia, nutritional anaemia, endemic goitre,

morbidity in young children, retarded physical and mental growth takes place as a sequel.

AIMS AND OBJECTIVE

The study is aimed on

- i) Assessment of anthropometric, biochemical laboratory parameters in some patients of *Karshya* and its interpretation.
- ii) To evaluate the efficacy of *Shatavari* in *Karshya*

MATERIAL & METHODS

Selection of the Patients

Patients complaining of gradual weight loss with apparent lean and thin look were selected from OPD & IPD of *Roga Nian* Department of G.B Ayurvedic College Rohtak Haryana, irrespective of sex and religion. The patients are included in the study following the mentioned screening criteria as below.

Subjective Criteria

- a. *Sushka Sphiga*
- b. *SushkaUdar*
- c. *Sushka Griba*
- d. *Dhamanijala Santato*
- e. *Twak Asthi Shesha*
- f. Intolerance of *Vyayama*
- g. Intolerance of *Kshuda*
- h. Intolerance of *Pipasha*
- i. Intolerance of *Oushadh*

j. Intolerance of *Shita, Ushna*

k. Intolerance of *Maithun*

The patients satisfying the above mentioned criteria are subjected for verification of exclusion and inclusion criteria.

Exclusion Criteria

- i) Age above 70 yrs and below 10 yrs.
- ii) Pregnant and lactating women.
- iii) Patients suffering from malignancy.
- iv) IDDM.
- v) Thyrotoxicosis
- vi) Tuberculosis, an extensive lungs disease
- vii) AIDS
- viii) Chronic Renal failure, cardiac failure, hepatic failure
- ix) Under nutrition extending to kwashiorkor and marasmus in children.
- x) The person who are hereditary lean and thin.
- xi) Patient unwilling to participate in the study.

During study period if diagnosis favour any of the exclusion criteria then the patient would be excluded from the study.

Patients are excluded from the study following the above mentioned exclusion criteria. Patients lying within the limit of inclusion criteria are included in the study.

Inclusion criteria are mentioned below:

Inclusion Criteria

- 1) Patient in between 10 to 70 years of age.
- 2) Patient following the maximum subjective criteria as mentioned earlier.
- 3) Chronic gastro enterocolonopathies.
- 4) Avitaminosis and mineral deficiency.
- 5) Patient not presenting *Pleeha, Kasa, Kshaya, Swasa, Gulma, Arsha, Udar, Grahani*.

Hence the patient satisfying the subjective criteria of *Karshya* and lying within the limit of inclusion criteria are included in the study.

Objective parameters

Objective criteria are observed in the selected patients.

Anthropometric measurement

a) BMI (Body Mass Index) = Weight in kgs/height in meter²

Patient measuring BMI < 18.5 should be taken as underweight (as per WHO categorization).

b) Mid upper arm circumference (MUAC) : The MUAC is <23.5 cm when BMI is <18.5 cm. MUAC of both the arm should be taken and using the average of the two.

The measurement is taken with the person standing upright, with arms hanging down loosely. The measuring point is half way between the olecranon process of the ulna and the acromion process of the scapula.

c) Waist and Hip Circumference

Clinical Assessment

Clinical examination should be done in general in a patient of *Karshya* through examination of pulse, blood pressure, build, nutrition etc. special emphasis should be

given on the following points during carrying on general examination such as.

i) Nutrition: It is assessed by

- a) Subcutaneous fat
- b) Bulk of muscle
- c) Feature of vitamin deficiency
- ii) Clinical assessment of anaemia
- iii) Oedema: To be detected on Ankle and sacral region
- iv) Hydration status: To examine, tongue and skin turgor
- v) Queries for postural Hypotension
- vi) Other salient features of malnutrition

- Dry cracked skin
- Dry cracked tongue
- Loss of scalp and body hair
- Poor wound healing
- Thinning of limb muscles
- Absence of distal reflexes

vii) Sign and symptoms of vitamin and mineral deficiency.

Systemic examination

Examination of respiratory, gastrointestinal, cardiovascular, etc.

Laboratory and Biochemical Assessment

Laboratory

- Hb% estimation
- Blood for TC, DC, ESR
- Stool for RE/ME
- Urine for RE/ME

Biochemical

- Estimation of Blood glucose – FBS/PPBS
- Serum Urea, Creatinine
- Liver function test

Adoption of Drug

For the evaluation of the effect of trial drug, namely, *Shatavari (Asperagus racemosus)* was selected for the present study. The drug was procured from the local market by the apothecary department after proper identification. It was washed in the tap water and dried under the sunlight. The dried drug was powdered and packed in 100 gm pouch in the apothecary department, and supplied for research.

Dosage and Duration of Drug

12 gm/day orally in two divided dosage for a period of 90 days along with luke warm milk.

Diet Consumption

Take fresh harvested rice, meat soup, curd, ghee, milk, sugarcane etc.

Diet Restriction

Avoid pungent, bitter and astringent substances, like oilcake of mustard, *Til*, honey, alcohol, etc.

Follow up

All the patients are reviewed, after each 15 days for a period of 90 days.

Study Sample

Total 40 patients of *Karshya* are included in the study.

Dropped out

Among 40 patients 5 patients are dropped out during study course, hence complete clinical survey is done in 35 patients.

Statistical Analysis

The obtained data were analysed statistically. The values are expressed as Mean + SEM (Standard Error of Mean). The data were analysed by paired 't' test. A level of $p < 0.001$ was considered as statistically highly significant. Level of significance was noted and interpreted accordingly.

Table 1: Showing the distribution of values of BMI 35 patients of Karshya

Range of BMI Kg/m ²	Number of patients	Percentage
18.4-16	21	60%
15.9 - 12.9	14	40%
Total	35	100%

Table 2: Showing the Statistical analysis of Anthropometric measurements (BMI, MUAC, Waist and Hip circumference) of 35 patients of Karshya before and after treatment

Anthropometric measurement	Mean BT	Mean AT	SD	SE	t value	p value
BMI	16.27	16.90	0.462	0.078	8.10	<0.001
MUAC	19.72	20.74	0.766	0.130	7.69	<0.001
Waist circumference	59.68	60.63	0.756	0.127	7.87	<0.001
Hip circumference	76.25	77.40	0.653	0.100	9.09	<0.001

Table-2 : Showing Mean value of BMI, BT and AT was 16.27 and 16.90 respectively; SD+0.462, SE + 0.078, 't' value 8.10, 'p' value <0.001. Mean value of MUAC at BT and AT was 19.72 and 20.74 respectively; whereas SD+ 0.766 and SE + 0.13, 't' value 7.69 and 'p' value < 0.001. The mean value of waist circumference before and after treatment was 59.68 and 60.63 respectively, SD + 0.756, SE + 0.127, 't' value 7.87 and 'p' value <0.001.

The mean value of hip circumference before and after treatment was 76.25 and 71.40, SD + 0.653, SE + 0.110 and 't' value 9.09 and 'p' value <0.001.

DISCUSSION

In *Charak Samhita*, the disease *Karshya* is described in a view of nutritional deficiency. As *Charak* considered this condition as undesirable phenomenon, hence principle of management and line of treatment is advised as because *Karshya* patients are prone to develop various diseases *Pleeha*, *Kas*, *Kshaya*, *Swas* etc. *Rukshannapan*, *Langhana*, *Promitsan*, *Kriyatiyoga* etc., are the main aetiological factor of *Karshya Roga*⁽⁴⁾. All of these causes aggravation of *Vayudosa* and *Upososhan* of *Rasa Dhatu*⁽⁵⁾. Hence *Shatavari* is selected to treat *Karshya*. It is included in *Madhura Skanda* and has *Valya*, *Vayasthapan* and *Sukrajanan* properties which indicates the efficacy of *Shatavari* in *Dhatu Kshaya* and *Vala Hani*. According to *Shusruta Shatavari* is mentioned as a selective drug in *Karshya*.⁽⁶⁾ In this present study it is observed that p value of BMI, MUAC, Waist circumference and Hip circumference is <0.001 which indicates the highly significant efficacy of *Shatavari* in *Karshya*.

Table 3: Showing probable mode of action of Shatavari in Karshya

Karshya	Shatavari
Dosa- aggravated Vayu	Rasa-Madhura, Guna- Guru, Snigdha
Upososhan of Rasa dhatu	Virya-Sheeta, Vipak-Madhura

OBSEVATION AND RESULT

The patients were selected on the basis of Subjective criteria, but Statistical analysis was done on the basis of Objective parameters (BMI, MUAC, Waist and Hip circumference) only. After completion of duration of three(3) months all 35 patients were examined and the Anthropometric measurement like BMI, MUAC, Waist and hip circumference were assessed before and after treatment which are presented herewith in the tabular form.

<i>Mamsa Medakshaya</i>	<i>Mahabhuta- Prithivi and Jala</i>
<i>Bala Hani</i>	<i>Prabhav-Rasayan</i>

So the above said table showing that properties of *Shatavari* are very suggestive to pacify *Vayu*, promote *Kapha*, *Meda* and *Mamsa* and enhance *Bala*.

CONCLUSION

The salient features which are obtained from the study are as follows :

- 1) All the patients of the study sample had satisfied the adopted subjective criteria.
- 2) The patients of *Karshya* those who were included in the study had satisfied the objective parameters of under nutrition recommended by WHO.
- 3) Therapeutic effect of *Shatavari* (*Asperagus racemosus*) is highly significant in *Karshya*.

The result highlight the dictum of *Sushruta* that *Shatavari* is a selective medicine for *Karshya* and also a good remedy for the same.

REFERENCES

- 1) Agnibesh, *Charak Samhita*, edited by Kushwaha Vd. Harish Chandra Singh, 1st Part, Chaukhamba Orientalia, Varanasi Reprint 2012, Sutra sthan, 21st chapter, Shloka No. 13, Page.No.412.

- 2) Sushruta, Sushruta Samhita, edited by Anantaram Sharma, Volume -1,Chaukhamba Sanskrit Samasthan, Varanasi, 12th edition 2001, Sutra sthan, 15th chapter shloka no-39, Page.No.63.
- 3) Agnibesh, Charak Samhita, edited by Kushwaha Vd. Harish Chandra Singh, 1st Part, Chaukhamba Orientalia, Varanasi Reprint 2012, Sutra sthan, 21st chapter, Shloka No. 3, Page.No.407.
- 4) Agnibesh, Charak Samhita, edited by Kushwaha Vd. Harish Chandra Singh, 1st Part, Chaukhamba Orientalia, Varanasi Reprint 2012, Sutra sthan, 21st chapter, Shloka No. 12, Page.No.411.
- 5) Sushruta, Sushruta Samhita, edited by Anantaram Sharma, Volume -1, Chaukhamba Sanskrit Samasthan, Varanasi, 12th edition 2001, Sutra sthan, 15th chapter shloka no-38, Page.No.63.
- 6) Sushruta, Sushruta Samhita, edited by Anantaram Sharma, Volume -1, Chaukhamba Sanskrit Samasthan, Varanasi, 12th edition 2001, Sutra sthan, 15th chapter shloka no-40, Page.No.63.

Cite this article as:

Majumder Madhumita. Clinical Study To Evaluate the Efficacy of Shatavari in Karshya. International Journal of Ayurveda and Pharma Research. 2017;5(3):20-23.

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr.Madhumita Majumder

Assistant Professor,
Department of Roga Nidan Avam
Vikriti Vigyan, G.B.Ayurvedic College,
Rohtak , Haryana, India.

Email: madhumitan8@gmail.com

