

## EFFECT OF CHANDRASHOOR BEEJA (GARDEN CRESS) PAYAS IN KARSHYA W. S. R. TO UNDERWEIGHT: A CASE STUDY

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Article Received on  
12 Jan. 2018,

Revised on 03 Feb. 2018,  
Accepted on 24 Feb. 2018,

DOI: 10.20959/wjpr20185-11348

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### ABSTRACT

**Introduction:** In *Ayurveda*, eight types of *nindit purushas* are described. *Atikarshya purusha* is one of them and they suffer from disease all the time. Lack of nutritious diet is one of the major cause of *karshya*. Nutritious diet is essential for the maintenance of health and prevention of many diseases. *Chandrashoor beeja* is the best nutritional plant. It contains rich amount of nutrients. As per *Ayurveda*, it has *vatashamak*, *balya* properties. **Aim:** To study the effect of *Chandrashoor beeja payas* on BMI and weight in *karshya*. **Material and methods:** This is a single case study on underweight female. *Chandrashoor beeja payas* was given for three months. Anthropometric parameters such as weight, body mass index (BMI),

waist circumference (WC), hip circumference (HC) and mid arm circumference (MAC) and subjective parameters were assessed before and after 3 months. **Result:** Significant increased in weight i.e. 4Kg was observed after three months. **Conclusion:** Regular intake of *Chandrashoor beeja payas* significantly increases weight and body mass index in *Karshya*.

**KEYWORDS:** Karshya, chandrashoor, nutrition.

### INTRODUCTION

*Karshya* is correlated with underweight as per modern science. Body mass index is a simple index of weight for height that is commonly used to classify underweight, overweight and obesity in adult. It is defined as the weight in Kg divided by the square of height in meters ( $\text{kg}/\text{m}^2$ ). In underweight person BMI is less than  $18.50 \text{ kg}/\text{m}^2$  and they have low risk of co

morbidities, but risk of other clinical problem increased. BMI of normal person is 18.50 – 24.99 kg/m<sup>2</sup> and they have average risk of co morbidities.<sup>[1]</sup>

*Atisthula* and *atikarshya purushas* suffers from diseases all the time. They are treated by slimming and nourishing therapies respectively. Among them *Karshyatwa* is less harmful than *Atisthula*.

“ *Sthaulyataukarshye varam karshyam samopakarnau hi tau  
Yadubhau vyadhiragacchaeta sthulamevatipeedyet* ”

Though both of them is equally need of treatment.

*Aacharya Charaka* has stated eight types of *Nindita Purushas* (undesirable person). *Atikarshya Purush* is one of them. *Rooksha annapan* (consumption of dry food and drinks), *Langhana* (fasting for long time), *Pramitashana* (taking very less quantity of food), *Kriyaatiyaga* (excessive *panchakarma* therapies), *Shoka* (grief), *Vega nidra vinigraha* (suppression of natural urges including sleep), *Rooksha udavartana* (dry powder massage), *Snana* (repeated bath), *Prakruti* (heredity), *Jara* (old age), *Vikaranushaya* (continued illness due to some disease) and *Krodha* (anger) are the causes of *karshya*.<sup>[2]</sup>

These persons are prone to *Pleeha* (spleenic disorders), *Kasa* (cough, cold), *Kshaya* (muscle wasting), *Shwasa* (asthama), *Gulma* (abdominal tumours) and *grahanigata roga* (diseases of small intestine and duodenum). Their buttocks, abdomen and neck are emaciated, veins are prominent underneath the skin, joints are predominantly seen and the man appears to have bone and skin only.<sup>[2]</sup>

In *Ayurveda*, the properties of *Chandrashoor* are described by *Aacharya Bhavmishra* under the class of *Haritakyadi varga* and *Chaturbeeja gana*. It is dietary and medicinal drug. Its nutritional values are very high.

## AIM AND OBJECTIVES

1. To study the effect of *Chandrashoor beeja payas* on *Karshya*.
2. To study the effect of *Chandrashoor beeja payas* on BMI and weight.

**MATERIAL AND METHODS****Case Report**

A 34 yrs old age female having weight 40kg was came to Government *Ayurved* College and Hospital, Nagpur, presenting with complaints of

1. Weight loss (willing for weight gain)
2. *Katishula* (moderate lower back pain),
3. *Ubhaya janu sandhi shula* (moderate bilateral knee joint pain),
4. *Daurbalya* (generalized weakness in the body).

**On Examination**

General condition of patient was moderate as vitals were stable.

**Ashtavidha parikshan**

1. *Nadi –vataj*
2. *Mala – prakruta*
3. *Mutra - prakrut*
4. *Jivha - sama*
5. *Shabda - spashta*
6. *Sparsh - sheet*
7. *Druk- prakrut*
8. *Aakruti – krusha*

**General examination**

1. Pulse rate - 76/min
2. B.P=100/70mm of Hg
3. No Pallor
4. Weight - 40kg
5. Height – 155cm
6. Body mass index -16.87kg/m<sup>2</sup>

**RS:** Air entry equal on both sides

**CVS:** Normal function, S1S2 normal

**CNS:** Conscious, Oriented

**P/A:** Patients detail history

No H/O any major illness, any drug history and major surgery.

**Personal history**

Wake up time at 5:30am, no exercise, *ruksha anna sevan*, fasting once a week, irregular timing of meal.

**Past history**

Since adolescence patient's weight was constant in between 35-40kg and she was healthy. She was taken treatment for weight gain but her weight was not increased. But from 6 months she was complaining of generalized weakness, moderate - bilateral knee joint pain and lower back pain & she was willing for weight gain. For the same complaints she was came to the Governments Ayurveda Hospital, Nagpur Swasthyarakshan opd of our institute. Patient presented with symptoms of *Karshya*, clinically examined and confirmed by BMI and according to symptoms of *Karshya* as per *Ayurveda*.

Anthropometric parameters such as height 155cm, BMI-16.87kg/m<sup>2</sup>, Chest circumference-32inches, abdominal circumference – 31.5 inches, hip circumference – 39 inches, mid arm circumference – 10inches were taken. In this patient, BMI  $\leq$  18.50Kg/m<sup>2</sup> which is considered as underweight.

**Menstrual history**

Regular, only one day bleeding (oligomenorrhoea).

**Advised therapy and its basis**

In *karshya Mansa* and *Meda dhatu* of the various parts of the body (ex. Abdomen, buttocks) is emaciated. Therefore for the management of *Karshya*, *Mansa* and *Meda dhatu* increasing diet is necessary. In this case, only dietary management was given to the patient without any medicinal treatment. For dietary management *Chandrashoor beeja payas* was selected. This *payas* was given in the morning (between 8 -9:00am) by empty stomach at the time of breakfast daily for three months. Nutritional values of chandrashoor beeja are very high. It contains rich amount of proteins, fats, carbohydrates, crude fibers, iron, calcium and phosphorus. As per *Ayurveda*, it is *bala* and *pushtivardhak*. That's why the *chandrashoor beeja payas* was selected for the study. Case was treated only by diet management. Normal range of BMI is 18.50 to 24.99Kg/m<sup>2</sup>. For 149cm height recommended cut off value of weight is 49.50kg. According to National Institute of Nutrition, Hyderabad (NIN), nutritional values of *Chandrashoor Beeja* and milk per 100gm are shown in table no. 1.<sup>[3]</sup>

**Table no. 1: Nutritional values of *Chandrashoor Beeja* and milk per 100gm.**

Sr. no.	Nutrients	Chandrashoor	Milk
1.	Calcium	377 mg	210mg
2.	Phosphorus	723mg	130mg
3.	Protein	25.3gm	4.3mg
4.	Fat	24.5gm	6.5mg
5.	Carbohydrates	33gm	5mg
6.	Iron	100mg	0.2mg
7.	Minerals	6.4gm	0.8mg
8.	Crude fibers	7.6gm	----
9.	Energy	454Kcal	117Kcal

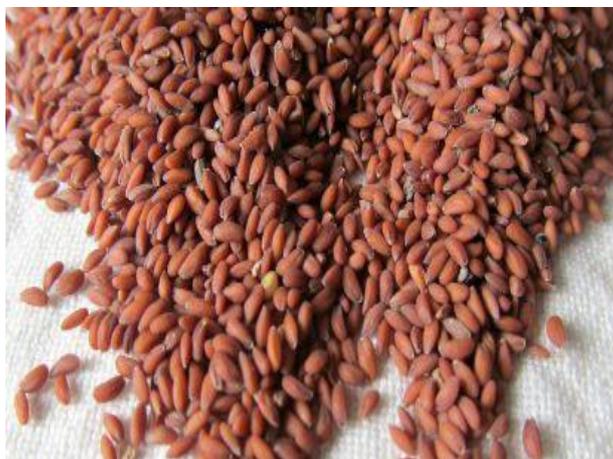
**Procedure of *Chandrashoor beeja payas***

- *Chandrashoor beeja* – 10gm
- Milk - 50ml
- Sugar – 5gm
- Water - 25ml

**Chandrashoor beeja**

10gm soaked in water for 30 minutes. Then milk and sugar is added in soaked beeja and boiled for 10 minutes.

Images of *chandrashoor beeja* and *Chandrashoor beeja payas* are given in image 1 and 2 respectively.

**Image no. 1: Chandrashoor beeja.**



**Image no. 2: Chandrashoor beejaya payas.**

### OBSERVATION AND RESULTS

Significant increase in weight i.e. 4Kg was observed after three months of regular intake of *Chandrashoor payas*. Effect of *Chandrashoor beejaya payas* on weight and subjective parameters are given in table number 2 and 3 respectively. Changes in the anthropometric parameters before and after treatment are shown in table number 4. The results were assessed using weight, BMI and other subjective parameters.

**Table no. 2: Table shows effect of *Chandrashoor beejaya payas* on weight.**

Sr. no.	Day	Weight gain
1.	1 <sup>st</sup> day	-
2.	30 <sup>th</sup> day	1Kg
3.	60 <sup>th</sup> day	1.5Kg
4.	90 <sup>th</sup> day	1.5Kg

**Table no. 3: Table shows effect of *Chandrashoor beejaya payas* on subjective parameter.**

Sr. no.	Symptoms	Day 1st	Day 30 <sup>th</sup>	Day 60th	Day 90 <sup>th</sup>
1.	Lower back pain	Moderate pain	Mild pain	No pain	No pain
2.	Bilateral knee joint pain	Moderate pain	Mild pain	No pain	No pain
3.	Generalized weakness	No Stamina	Stamina +	Stamina ++	Stamina +++

**Table 4: Changes in anthropometric parameters.**

Sr.no.	Assessment	Before treatment	After treatment
1.	Weight	40.50kg	44.50kg
2.	Chest circumference	32inch	34inch
3.	Abdominal circumference	29inch	31.5inch
4.	Hip circumference	34.5inch	36.5inch
5.	Mid arm circumference	8inch	9inch
6.	BMI	16.87kg/m <sup>2</sup>	18.54kg/m <sup>2</sup>

## DISCUSSION

In this study, observation was done before and after treatment based on the symptoms gradation and the result obtained are weight before treatment was 40.50kg and after treatment weight increased by 4Kg (ie-44.50Kg). BMI BT was 16.87kg/m<sup>2</sup> (which was underweight) and AT it is increased to 18.54kg/m<sup>2</sup>, which is the normal BMI. Lower back pain and bilateral knee joint pain, generalized weakness was completely reduced after treatment.

In *Ayurveda*, *bruhan chikitsa* is advised by various *Aacharya*. *Chandrashoor* and milk both have *bruhaniya* property. *Chandrashoor* has *katu* and *tikta rasa*, *katu vipaka*, *ushna veerya*; *snigdha*, *picchila guna* and *vata-kaphashamak*. It is useful for *bala - pushtivardhan* (increase general body strength and to gain weight). It is also used in lactating mothers to increase milk production and in children's to increase height.<sup>[4]</sup>

Milk is *madhur* (sweet), *snigdha* (unctuous), *sheeta* (cool), *preenan* (refreshing), *bruhan* (nourishing), *vrushya* (aphrodisiac), *medhya* (useful for intelligence), *balya* (increases strength), *shramahar* (fatigue reliver), *bruhan*. It is useful in *pandu* (anaemia) and is wholesome for all living beings and is alleviator and eliminator of *Doshas*.<sup>[5]</sup>

*Chandrashoor* and milk both contains maximum amount of nutritive principles. Hence the *payas* of *Chandrashoor beeja* improves the quality of *dhatu*, so this is useful for weight gain in *karshya*.

## CONCLUSION

Regular intake of *Chandrashoor beeja payas* significantly increases weight and body mass index in *Karshya*.

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