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EFFICACY OF CHARKOKTA KARSHANIYA YAVAGU IN STHAULYA

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ABSTRACT

In modern era with continuous changing life and environment, changed dietary habits and sedentary lifestyle everything has become victim of many diseases caused by all above reasons and sthauilya i.e obesity is one of them. Obesity is the commonest metabolic disorder in society caused by excessive eating, lack of exercise. It is the life threatening disease like that of diabetes mellitus, hypertension, Myocardial infarction etc. In Ayurveda several treatments are mentioned for this disorder karshaniya yavagu is one of them mentioned in ayurvedic classical text charak samhita. Karshaniya yavagu having antiobesity properties.

Keywords: Obesity, sthauilya, Karshaniya yavagu

INTRODUCTION

In developed and developing countries obesity and overweight are 5th leading risk factor of global health problem. obesity is the commonest disorder. WHO acknowledges that obesity is a world wide problem. A change in lifestyle leads to several types of health disorders including physical, mental, social and economical. The advancement of industrialization is contributing towards sedentary life style causing disorders like DM, Hypertention, Artherosclerosis etc. Ayurveda also focus on obesity advise diet plan along with vyayam (work out). In chakasamhita adhyaya 2 description about karshaniya yavagu is

given . It is having antiobesity properties.

AIM AND OBJECTIVES

To study the efficacy of charkokta karshaniya yavagu in sthaulya.

OBJECTIVES

To study sthaulya in detail

To study Yavagu Ahara Kalpana in detail

To study Guna karmas of Gavedhuk & Makshika.

MATERIAL AND METHOD

Obesity

Obesity is the major health problem. It's prevalence rate doesn't have exact figure. In adult 20-40%, 10-20% in children & adolescents in developed countries. In urban areas nearly 25% are Obese^[1]. In developing countries it is the burning question. Now a days due to the developed scientific technology human beings are highly sensitive and develops disorders such as Diabetes mellitus, obesity, artherosclerosis etc.

Plant Material

Dried grains of coix lacryma-jobi (Gavedhuk)^[2]. It is commonly known as Job's tears, coix seed, chinese pearl barley^[3]. In ayurvedic text it is mentioned as best anti-obesity action. Traditionally it has been used as a drug cum food supplement for obesity and overweight which contributes a major lifestyle disorder^[4].

Varieties:

There are four varieties^[5]

1. C. lachrymal-jobi L. var. typical
2. C. lachrymal-jobi L. var. stenocarpa stapf
3. C. lachrymal-jobi L. var. monilifer stapf
4. C. lachrymal-jobi L. var. mayuen stapf

Wild Type: C. lachrymal-jobi var. stenocarpa and var. monilifer. These have very hard shell

pseudocarps and pearl white oval structures and have been used as beads.

Cultivated type: C. lachrymal-jobi. var. mayuen are harvested as a cereal crop, has soft shell & cultivated in all parts of asia.

Classical Pharmacology^[6]:

Rasa : katu, Madhura

Vipaka: Katu

Virya: Ushna

Dosha-karma: kaph-nashaka

Karma: Karshya- karaka, Sukranashaka

Classical uses of Gavedhuka in Ayurvedic texts:^[7]

Classical text	Indications & uses
Charak samhita	Karshana
Bhavaprakash	Sthaulya chikitsa
Bhaishajya Ratnavali	Vatavyadhi chikitsa
Vrinda madhava	Decoction sprinkled in masurika (conjunctivitis)

Nutritional value:

100gm of seed contains 380 calories, 11.2 gm water, 15.4 gm protein, 6.2 fat, 65.3 gm carbohydrate, 0.8gm fibre, 25 mg calcium, 435 mg phosphorus, 5.0mg Iron, 0.28 mg Thiamine, 4.3 mg Niacin, 0.19 mg Riboflavin and 1.9 gm ash. The major protein component in job's tears seed is a prolamin called coixin. It also contains albumins and globulins and other residual proteins.^[8]

Anti-obesity activity:

The water extract of coix seeds exhibits anti-obesity activity by regulating the neuroendocrine activity in the brain^[9].

1. Obesity- induced rats were injected with 50mg/100g/ body weight of water extract of coix seeds daily for 4 weeks. Optical density of neuropeptide-Y immunoreactivity in the paraventricular nucleus of rats was lowered by 2.6 folds. Both of NPY and LR (Leptin receptor) mRNA levels were also determined by real-time PCR and decreased in coix treated rats. The results showed that coix may regulate neuroendocrine activity in the brain and regulate fat metabolism^[10].
2. A study was conducted to investigate the effect of coix extract on protein expression levels of peroxisome proliferate- activated receptor $PPAR\gamma^2$ and c/EBP α (CCAAT-enhancer-binding protein α) and obesity responses in obese mice induced by HFD. The results showed that obesity, fat accumulation, and serum cholesterol were alleviated by the coix extract. $PPAR\gamma^2$ and c/EBP α , proteins are related to the adipogenesis, were also modulated by the extract^[11]

CLINICAL STUDY**Anti-obesity potential:**

A clinical study was conducted on karshaniya yavagu so as to evaluate the efficacy of anti-obesity potential. After 90 day trail the weight of body , body mass index, waist circumference, hip circumference & waist to hip ratio of the trail group showed significant result. ^[12]

Drug preparation (karshaniya yavagu)

One part gavedhuka was taken. Gavedhuka were roasted on a dry pan for 5 minutes. Water was poured in 6 parts in a pot . The mixture was allowed to boil for 30 minutes and then cooled up to room temperatue. Then 5 ml madhu was added and used as a drug^[13]

Preparation of yavagu kalpana as per sharangdhara samhita

Karshaniya yavagu as per cha. Su. 2/25 which includes gavedhuk, makshika and water

DISCUSSION

Obesity is a chronic disease in sedentary lifestyle that affects the young and old equally. In developed as well as developing countries obesity is becoming a major health problem and its prevalence is increasing world wide. Gavedhuk seed having katu rasa & vipaka. It reduces the kapha & meda in the body. It is having ushna veerya, it increases the digestion power that reduces the kapha and melted down the meda in the body. As it reduces the kapha & meda in the body it helps in reducing weight. Thus having antiobesity activity. Coix regulate the neuroendocrine activity in the brain causes reduction in body weight, fat mass. It increases the serum leptin levels which lowers the feeding habits.

CONCLUSION

Sthaulya is the result of sedentary lifestyle of today's modernization. Sthaulya (obesity) is more common in female gender. Patients of age group 40-44 years are more prone to weight gain. It needs both dietary and habitual modifications along with drug therapy. Karshaniya yavagu helps in reducing sthaulya. All action happens according to dravya vishesh and guna vishesh of ingredients of karshaniya yavagu viz. yava & makshika. Since time Gavedhuka has been used for obesity and overweight. Therapeutically it has been used as pathya aahar as well as in the form of yavagu in obesity.

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