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EVALUATION OF VATSAKADI GANA IN OVERWIGHT AND OBESITY

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ABSTRACT

Obesity is the most common nutritional disorder in affluent societies. According WHO 2010 report, worldwide obesity has more than doubled since 1980. 65% of the world's population live in countries where overweight & obesity kills more people than underweight. So obesity is gaining more & more attention at the globally. That's why so many countries are making an effort to find out the perfect remedy for this burning problem. The incidence of Diabetes mellitus, hypertension, angina pectoris, and myocardial infarction etc. is higher among obese individuals. Commonly obesity is due to excessive eating and lack of adequate exercise. Hence this topic is selected for research in which Ayurvedic review of obesity and overweight is done. Sthaulya is caused due to vitiation of Kaphadosa and Medo,

Mamsadhatu. So the treatment should require which stabilise them. Hence VastakadiGana is selected for clinical study because it certainly cures vitiated Vāta, Kapha, and Meda. A trial has been made in the present study to make some new dimensions in respect to weight loss and overall effect of therapies were obtained based on clinical evaluation.30 patients of Sthaulya have been selected between the age group 18-50 years. Clinical examination done with the help of assessment criteria based on Ayurvedic symptoms of Sthaulya along with modern parameters. Tablets of Vatsakadi Gaṇa given to them for two months (2 x 500mg

BD). Lipid profile of each patient was done before and after treatment. Four follow ups were taken and Obeservations were noted.

KEYWORDS: Sthaulya, Vatsakadi gana, Lipid profile, overweight, obesity.

INTRODUCTION

In today's era, it is observed that goals of life are changed. Society is becoming materialistic. People are adopting unhealthy life style. Dietary habits, daily activities, earning sources all these things are changed. This unwanted and unhealthy change gives momentary happiness but its constant use results into various pathological conditions and people suffer through the vicious chain of disorders. These disorders are caused by two modes 1.disorders due to over nourishment 2. Disorders due to lack of nourishment among these two, disorders due to over nourishment are selected for research work. As these disorders finally results in obesity.

Ācārya Carak has clearly mentioned that, treating obesity is a challenging task, as compared to treating emaciation. In today's era, percentage of overweight and obesity is increased in all age groups. So it is primly considered for research work. Currently the disorders like diabetes, skin diseases, urinary problems, infertility, etc. are observed in huge percentage. They are mainly caused due to obesity. They are certainly cured after treating obesity. Same thing is stated by Caraka Ācārya with this quotation,

This quotation states that, treatment prescribed for disorders due to over nourishment works in following way. In first step, it treats obesity and then breaks the vicious chain of pathogenesis of these disorders. Hence it is clear that, the treatment of obesity is important measure in all such above kind of disorders. Untreated obesity provides the platform for so many hazards like Hyper Tension, Chronic Heart Diseases, Diabetes Mellitus, Osteoarthritis, Infertility, Impotency as well as psychological disorders like stress, anxiety, depression etc. Thus, the mortality and morbidity is more in obese person as compared to others.

AIM

To study role of Vatsakādi Gana in Sthaulya (obesity).

OBJECTIVES

To study pathogenesis of SthaulyaVyādhi and mode of treatment.

To study role of Vatsakadi Gana in Sthaulya.

Materials

- Brhatatrayi and allied literature.
- 30 patients of overweight and obesity.

Methodology

- 1. References of Sthaulya were studied in detail and categorised with the help of Brhattrayī and. All drugs from Vatsakādi Gana were studied on the basis of their Guna and Karma.
- 2. Consent form and case paper were prepared.
- 3. Authantification of all drugs existing in Vatsakādi Gana was done by standard source.
- 4. Tablets of Vatsakādi Gana were prepared in the pharmacy of College of Āyurveda Bharati Vidyapeeth Deemed University, Pune.
- 5. 30 patients of Sthaulya were selected on the basis of inclusion criteria. Role of Vatsakādi Gana in overweight and obesity was studied. Dose, Duration and Anupan was as follows,
- 1. Dose:- 2 tablets twice a day. (Each of 500 mg.)
- 2. Duration: 60 days (8 weeks)
- 3. Anupana:- Hot water
- 6. Total 4 Follow-ups were taken with the gap of 15 days.
- 7. Observations depending upon assessment criteria (mentioned below) was noted at each follow up.
- 8. Place of clinical work-Bharati Vidyapeeth Medical Foundation's Bharati Āyurved Hospital, Pune Satara Road, Dhankawadi, Pune-43.

Inclusion Criteria

- 1. Patients having BMI =25 and above.
- 2. Age group- 18yrs to 50yrs.
- 3. Either sex.

Exclusion Criteria

- 1. Obesity with severe complications like coronary heart disease.
- 2. Obesity with Pregnancy.

Assessment Criteria

- 1. Sign and symptoms of obesity according to Brhattrayī.
- 2. BMI
- 3. Body Girth Measurement
- a. Waist circumference
- b. Hip circumference

Pathogenesis of obesity and drug review

Overweight and obesity a disease review

 Sthaulya is caused due to Medovridhi along with Kaphadōṣa vitiation, so to treatment of Sthaulya allivation of these Duṣyas required.

Drug review

- In present study, Vatsakādi Gaņa was selected for the management of Obesity. There are 23 ingredients under this gaṇa are Bitter, Pungent rasa dominating, Bittervipāki, uṣṇavīryatmak, which are responsible to karśaan in the body, eliminate Kaphadōṣa, and Mēdadhātu.
- In this Vatsakādi Gaṇa out of 23 drugs 20 number of drugs is fond of BitterRasa. Bitter and sweet are having opposite properties, so Bitter is useful for treating obesity.

Table 1.

Rasa	No of drugs	% of Rasa
Pungent	14	37%
Bitter	20	52%
Astringent	3	8%
Sweet	1	3%

OBSERVATIONS

The end result of each therapy was assessed individually on various parameters and then finally inferences were drawn and are presented here.

1. Occupation

In present study, maximum patients were the one who always in siting type of work and house wives, while other were having business and student. The reason behind this might be light nature of work, advancement of new techniques, tool And the common cause of obesity in housewife is day time sleep.

Table 2.

WORK WISE	Patient	% of patients
Housewife	7	23%
Siting work	18	60%
Student	5	17%

2. Marital status

In this study maximum patients are recorded as Married, Obesity is common in married females in comparison to unmarried, owing to hormonal imbalance occurring after marriage and pregnancy

3. Āhāraj hētu

Observations: 90% were taking oily food and 76.6% were having heavy food items. There are 73.3% patients consuming milk products.

Table 3.

Āhāraj	Food items	% of patients	Number of patients
Heavy food items	Maggii, Noodles, Burger, Pizza, Bread	76.66	23
Sweet food article	Bakery products, fruit Salad, Shrikhand.	63.33	19
Cold items	Soft Drinks, Ice cream, Pastries, Cold Cake, Juice etc.	33.33	10
Oily food article	Bread Pattice, Noodles, Butter, Cheese,Oily food	90	27
Unctuous food items	Pasta, Butter etc	23.33	7
Newly harvested food	New harvested crop	26.66	8
New beverage		3.33	1
Milk products	Curd, paneer, Milk Shake etc. Salty food with Milk etc	73.33	22
Meat	Aquatic and meat of animals from Marsay land etc.	60	18

4. Vihārajhētu

Observations: There are majority of the patients i.e. 90% were follows sitting posture, and 83.33% were follows hate to do activities. Hence as we see if people having following type of vihāra they may become obese.

Table 4.

Vihāraj hētu	% of Patients	Number of Patients
Exercise	13.33	4
Coitus	23.33	7
Sitting posture	90	28
Hate to do activities	83.33	26
Day sleep	63.33	19
Excessive sleep	10	4

5. Mind related causative factors: There are majority of the patients i.e. 80% were having habit of Happiness and only 20% having lack of stress, Hence we said that if people having follows in this type of habit i.e. happiness they become obese.

Table 5.

Psychiological Examination	% of Patients	Number of patients
Happiness	80	18
Lack of stress	20	8

6. Weight

Vatsakadi vati has significant result to reduce weight in Sthaulya. Average weight reduction in patients is **3kg**.

7. Body mass index

Vatsakadi vati has significant result to reduce BMI in Sthaulya.

8. There was reduction observed in various body circumferences i.e. in Chest circumference, in waist, in hips circumference P<0.01. The result was highly significant at p<0.001.

9. Effect of therapy on sign and symptoms

Effect on Chalatva: only one patient got relief from javoparodha

Effect on Daurbalya: Improvement in Daurbalya was significant at p<0.05, similarly in Daurgandhya, swēdādhikya, Kshudhādhikya, Ālasya, and Trishādhikya

Kruchravyavāyata: Not significant results as p value 0.046.

- **10. Biochemical investigation:** In present study S. cholesterol, S. Triglyceride and HDL were carried out before and after treatment.
- **a. Serum Cholesterol:** Maximum numbers of patient's shows significant reduction in cholesterol ie25, and 5 patients have no effect in cholesterol levels.

- **b. HDL:** HDL level increased in 8 patients that is significant result. And 19 patients show reduction in HDL after treatment.
- **c. S. Triglyceride:** Maximum patients shows reduction in triglycerides i.e. 20. Results are significant in biochemical examination.

CONCLUSION

On the basis of clinical study, following conclusions has been drawn.

- Majority of patients from selected data were suffering from Truṣṇa Aatimatra, Svedādhikya, Ālasya, Kshudhādhikya.
 - Apart from all Āhāraj, Vihāraj, and Mānasikhētus given in Samhitā, it has been observed that Stress, use of Oral Contraceptive pills, changed Diatery habits, Consuming fast food instead of meal etc are also responsible for Sathulya now days.
- 1. Effect of Vatsakādi Gaṇa on Lakṣaṇas:-Maximum reduction is seen in Daurbalya, Ālasya and Trishna, and moderately relief from Kshudhaādhikya, Swēdādhikya after treatment. As Javōparōdha was seen in only one patient but marginal result is seen in Javōparōdha. In kruchravyvayata there is no any significant result. It may be because of drugs in Vatsakādi Gaṇa are Kaṭu Rasa Pradhān, and having Uṣṇa Vīrya.
- 2. Vatsakādi vaṭī has shown highly significant result on cholesterol and decrease in body girth. Reduction in waist circumference and hip circumference is more significant. Average weight reduction in patients is 3kg.

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