A ROLE OF VIDANGADI YOGA IN MANAGEMENT IN STHAULYA W.S.R TO CHILDHOOD OBESITY

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ABSTRACT

Life style disorders are the emerging challenge in front of the health society. Obesity is one of the leading health issues in the children even in developing poor resource country like India. Unhealthy dietary habits, increased use of junk foods, cold drinks etc. are the etiological factors for the obesity among the Indian children. Overweight and obese children likely to stay obese in adulthood and cause a major risk for serious diet-related chronic disease including type 2 diabetes, cardiovascular disease, hypertension, stroke and certain forms of cancer. Increased prevalence and failure to conventional therapy drives the surge to develop new treatment modalities through Ayurveda is the requirement of time. According to Ayurveda it is mainly related to Meda Dhatu and Kapha Vata Dosha Vikruti. Medohara Vidangadi Yoga mentioned in classical text of Ayurveda is selected as the trial drug in the study considering its Vata Kaphahara and Medoghna properties.

KEYWORDS: Ayurveda, Obesity, Sthaulya, VidangadiYoga.

INTRODUCTION

Obesity is disorder which is related to Life style. Our life style has been changed due to modernization and digitalization. Particular obesity in children is related with lack of outdoor game and exercise. And therefore Life style disorders are the emerging challenge in front of the health society. Particularly it is the burning health issue among the pediatric population.
Obesity is one of the leading health issues in the children even in developing poor resource country like India. And it is second leading cause of preventable deaths.\textsuperscript{[1]} The prevalence in India is alarmingly high in pediatric age group and continuously going on increasing. Unhealthy dietary habits, increased use of junk foods, cold drinks etc. are the etiological factors for the obesity among the Indian children. Childhood obesity affects both developed and developing countries of all socio-economic groups, irrespective of age, sex or ethnicity. Obesity in urban children in New Delhi has shown an increase from 16\% in 2002 to about 24\% in 2006-2007. Recent data show that the prevalence among adolescent children was 29\% in private schools and 11.3\% in government funded schools. The calculated global prevalence of overweight (including obesity) in children aged 5-17 y is 10\%, and the prevalence varies from over. Recent trends in Indian population indicate arise in obesity both in children as well as adults.

Aims and Objectives

- Critical study on disease Sthaulya (obesity) in children from Ayurvedic and modern point of view.
- To evaluate the efficacy of Vidangadi Yoga on Sthaulya in children.
- To prevent the complication related to obesity

Disease Review

_Samhitakala_ is considered as the golden era of _Ayurvedic_ history owing to its systemic description of the disease. _Charaka_ was the first to present a detailed description of _sthaulya_. He has included _Atisthula_ as one among the _AshtaNindita_ Purusha (eight censurable physiques). He has described its causative factors mainly to be exogenous. Its hereditary nature, aetiopathogenesis prognosis and management have also been mentioned. _Sushruta_ has elaborated the aetiopathogenesis based on an endogenous entity due to _Dhatvagni Mandya_. _Kashyapa_ has cast light on _Sthaulyawhile narrating Medasvi Dhatri Chikitsa_ and given emphasis to _Raktamokshana_ (Bloodletting) in the management.

Obesity can be defined as “excessive deposition or distribution of adipose tissue or fat in the body Park defined obesity as an abnormal growth of adipose tissue due to an enlargement of fat cell size (hypertrophic obesity) or an increase in fat cell number (hyperplastic obesity) or a combination of both.
According to Dorland “obesity is an increase in body weight beyond the limitation of skeletal and physical requirements as the result of excessive accumulation of body fat”.

Obesity is defined by most authorities as occurring when a person’s weight is at least 10% excess of the normal or required weight (Harrison’s Principle of internal medicine).

Obesity in adult is defined as body mass index (BMI) greater than 30kg/m².

**Childhood obesity**

Obesity in children is defined as at or above 95th percentile of BMI for age and gender.

To define obesity in children, the percentile distribution relative to gender and age in the centres for disease control and prevention (CDC) 2000 growth charts are now the preferred reference.

**Drug Review**

*Vidangadi Churna* (A.hr.su-14/24)”

*AstangHridaya*, a well-known practice based Ayurvedic documentation, from the later centuries, is the prime substratum for the drug selection of this study topic.

The study was planned as here in under.

A Single group pilot study: In this group *Vidangadi Churna* was given to the patient of *Sthaulya* with as below.

**Vayavidanga**[2]

Latin Name- Embliaribes
Family: Myrsinacae

*Gana*:

*Charaka: Krumighna, Shirovirechan, Truptighna, Kusthaghn*[3]

*Sushruta: Pipalyadi, Surasadi*

Classical Name: *Vidanga, Chitratandul, Jantunasan, Vatari, Jantug, Krishnatandul.*

Sanskrit Name: *Vidanga*

Hindi Name: *Vayabidaga*
Properties
Rasa: Katu, Kasaya
Guna: Katu
Virya: Ushna
Vipaka: Katu
Prabhava: Krimighna
Doshaghnata: Kapha-VataShamaka
Part used: Rhizome

Actions and Uses
Rogaghnata: Vatavyadhi, Kapha Vata Janyavikara,
Karma: Vata Kaphashamaka, Kusthaghna, Dipana, Pachana,
Anulomana, Rasaynadravya, Medonasaka, Sirovirechan.

Properties and Uses
Sushruta described use of Vidang in the treatment of Krimi, Kostha Meda, Shiloroga.
Bhavaprakasa mentioned it in Shoola, Adyaman Udar Vikara Krimi etc.

Chemical Composition
Embliaribes contains 2.5 stable oil colour agent, tannin, Embelin, resin, kshar. Vidanga is useful in diseases due to blood impurities and in disease caused by vitiation of Meda. It purifies blood by optimizing its Agni and is very useful in disorders of rasa Dhatu and oedema.

Shunthi[^4]
Latin Name: Zingier officinaleRosc
Family: Zingiberaceae
Gana:
Charaka: Truptighna, Dipaniya, Trishanigrha[^5]
Sushruta: Pipalyadi, Trikatu.
Classical Name: Shunthi, Vishva, Vishvabhesha, Shringavera, Mahaushadha, Nagara.
Sanskrit Name: Shunthi
Hindi Name: Shonth
English Name: Ginger, Dry Zingiber
**Properties**

*Rasa: Katu*

*Guna: Laghu, Snigdha*

*Virya: Ushna*

*Vipaka: Madhura*

*Doshaghnata: Kapha-VataShamaka*

*Part used: Rhizome*

**Actions and Uses**

*Rogaghna: AmaVata, Vatavyadhi, KaphaVataJanyavikara, Shotha, Agnimandhya.*

*Karma: Kapha-VataShamaka, Shothahara, Dipana, Pachana, Anulomana, Shoolahara, Srotorodhanivarana, AmaPachana.*

**Properties and Uses**

Charaka described use of *Shunthi* in the treatment of haematuria, piles, dysentery and inflammation in the disease of stomach and to digest the Ama. *Sushruta* mentioned it in *Karnashoola, Kamla*, and Gulma etc. *Vagbhatta* also advised it in *Karnashoola*. *Vrinda* refers its use in *SannipataJvara, Agnimandya, Ajeerna, Amavata, Grahani, Hikka, Urustambha*, etc. *Shodhala* also mentioned it in *Grahani, AmaVata, Vrishchakavisha, Arsha* etc.

**Chemical Composition**

Zingiberofficinale contains 0.25 to 3% of a volatile oil possessing the aroma. The drug contains in addition resin and about 56% of starch. The crude fibre varies from 1.7% to 9% with an average of 4% the vitamins present in the green ginger are; Thiamine 0.06, riboflavin 0.03, niacin 0.06, and vitamin C 6.0 mg/100 gm. The carotene present in 40mg/100g. *Shunthi* is included under *DeepanaiyaMahakashaya* so by virtue of *Deepana Pachana* and *Rochanguna*, it modulates the Agni especially at the Dhatu level of metabolism. By its *Trishnanigrahan* property, it prevents voracious thirst in *Sthaulya*.

**Amalaki**[6]

Latin name: Embilicaofficinalis

Family: Euphorbiaceae

Gana:
Charaka: Vayasthapana, Virechanopaga
Sushruta: Triphala, Parushakadi
Classical Name: Amalaki, Dhatri, Amla, Amalaka
Sanskrit: Amalaki
Hindi: Amla
English: Emblicamyrobalan

Properties
Rasa: Pancharasa(LavanaVarjita) AmlaPradhana
Guna: Guru, Ruksha, Sheeta
Virya: Sheeta
Vipaka: Madhura
Doshaghnata: Tridoshashamaka
Parts Used: Fruit

Actions and Uses
Rogaghnata: Prameha, Hridroga, Yakritroga, Kustha.
Karma: Dahaprasamana, Chakshushya, Keshya, Rechana, Deepana, Anulomana, Vrishya, Rasayana.

Chemical Composition
It contains Gallic acid, tannic acid, sugars, albumin, cellulose and minerals. It is rich Source of Vitamin C which is 720mg and 921mg per 100gms of fruit pulp and juice Respectively. Other contents are as follows (per 100gms of fruit) : Moisture 81.20 mg, protein 0.5mg, fat 0.1mg, minerals 0.7 mg, phosphorus 0.02 mg, iron 1.2 mg, nicotinic acid 0.2 mg.

Pharmacological Actions
Fresh fruit is diuretic and laxative. Fruit is also carminative and stomachic. Dried fruit is sour and astringent.

Yavaka Kshar[7]
(Mixture of Potassium Salts).
Group-KsharaVerga
Synonyms-Yavaka Kshar, Yavapatya, Yavasukaj, Yavagraj, Yavasuka, Sukraj etc.
Sanskrit -YavakaKshara
Hindi - Jaukhar
English -Mixture of Potassium Salts

Properties
Rasa -Katu
Guna -Sara, Laghu
Virya -Ushna,

Actions and Uses
Rogaghnata-Vata kaphanasaka, Grahniroga, Anaha, Arsa, Udar, Hridaroga, etc.
Karma -Deepan, Pachan, Mutral, SwedapravartakActonKosthagata Vayu.

Pharmacological Actions
Yavaka Kshar having laghu, Snigdha, deepan, Pachan Kaphanasak properties and its evacuate the Kosthagata Vayu.

Kala Lauha Bhasma⁸ (Lauha - Bhasma) Dhaka

Properties
Rasa - Tikta, Madhur, Kasaya
Guna - Sara, Guru, Ruksha
Virya – Sheeta

⁸Rasa --Tarangini 20/83
Actions and Uses

Rogaghnata- Tridoshnasak, Medoroga, sotha, Pliha roga, kamla, Rakatajroga Kaphajroga, Jara vyadhi Gulma, Udara rogoprameha, Grahani etc.
Karma - Lekhan, Ayusya, Vayastambhka, Yogvahi, KosthaSodhak, actas Rasayan (srestharasyan) etc.

Java\(^9\) (Yava)

**वातकर: कपफिप्प वेदब्रमघीनस्वास्कासोमभक्षणप्रश्नः । (ध,नि १६/७८)**

Latin Name - Hordeum vulgare
Family - Gramineae
Hindi - Java
English - Barley

Properties

**Rasa** - Katu

**Guna** - Madhur, Kasaya, Tikta

**Virya** - Sheeta

**Vipak** - Katu

Chemical Composition

It contains Carbohydrate 69.3%, Protein 11.5%, Minerals 1.5%, except calcium, Iron Vit C.

Actions and Uses

Rogaghnata - Meda, Prameha, Pinasa, Swasa Kasa, Urustambha Ama nasak Kupachan (Indigestion), Jwara, Atisara, Mutrakrichha, and used in Pradahayuktavikara.

Karma - In all ailments it is used as Yavamanda.

Dose & Duration: According to young’s formula

**Anupan**: KoshnaJala

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DISCUSSION AND CONCLUSION

Drugs of MedoharaVidangadiYoga having Dipana and RukshaGuna helpful to reduce the MedaDhatu and consequently helpful to control the symptoms of childhood obesity. Some evidence based medicinal data of the content of VidangadiYoga shows direct action on lipids and fats accumulated in adipose tissue. Drug was found safe to use in children as no adverse reaction were noted throughout the study period as well as in follow up period. Hence, Vidangadiyoga is significantly effective in the management of sthaulya in children.

REFERENCES