



ROLE OF MILLETS IN STHOULYA MANAGEMENT WITH UDVARTANA THERAPY: A CRITICAL REVIEW

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ABSTRACT

In modern days, as a result of a sedentary lifestyle, unhealthy eating habits, lack of physical activity, mental stress and other factors, people invite numerous diseases. *Sthoulya* (Obesity) is one among the major lifestyle issue that puts people at risk. It has reached pandemic proportions in India in 21st century, impacting 5% of the population. Obesity is characterized to excessive accumulation of fat. In *Ayurveda*, *Sthoulya* is considered as *Santarpanjanya vyadhi* (over nutrition) which is mainly caused by *KaphaVata Dosh*a and excessive accumulation of *Meda* (depose fat) in body. *Udvartana* is one of the *Panchakarma* therapies which possesses *Shoshana* (absorption) and *Kapha-Medohara* (alleviation of vitiated *Kapha* and *Meda*) properties. It differs from *Abyanga* in that of direction of application and pressure of the massage. Millets are grains used traditionally for thier nutritional and medicinal values. In various classical texts, millets are mentioned in the form of *Trin dhanya* and *Kshudra dhanya*. Various millets such as yavanala, kodo have *Kashaya-Madhura rasa*, *Katu Vipaka*, *Sheeta Veerya*, *Laghu-Ruksha Guna* and have *Karma* like *kapha-pittaharan*, *Lekhana*, *Kledashoshana*. Analysing the general attributes and effects of millets, it gives an obvious idea that *Udvartana* with different powder of millets leads to *scrapping* of *Vikrita Kapha Dosh*a, accumulated *medo Dhatu* and removes *aavarana* and *srotorodha* resulting in *laghutva* of *Sharira* which ultimately shows its benefits in *Sthoulya* (Obesity).

KEYWORDS: *Udvartana*, *Sthoulya*, Obesity, Millets.

INTRODUCTION

Sthoulya (obesity) is among the disease which comes under *santarpanoththa vyadhi* (nutritional disorder).^[1] According to W.H.O, overall, about 13% of the world's adult population (11% men and 15% women) were obese in 2016. The worldwide prevalence of obesity nearly tripled between 1975 and 2016.^[2] Obesity is a risk factor for diabetes, hypertension, cardiovascular disease, and a variety of other disorders, all of which can result in increased morbidity and mortality.^[3]

In the texts of *Ayurveda*, an elaborate description has been given about *Sthoulya*. Acharya Charaka listed 8 defects underlying *Sthoulya Purusha Ayu*hara, *Alasya*, *Krichchvyavaya*, *Daurbalya*, *Daurgandhya*, *Atisweda*, *Atikshudha*, *Atipipasa*. *Ayurveda* places a high value on primary and secondary illness prevention, as detailed in the *Dinacharya*, which addresses disease prevention at many levels such as *Abhyanga*, *Vyayama*, and *Udvartana* with the goal of preserving health. *Nidana Parivarjana* (avoiding the causative factors), *Karshana*, *Guru*

atarpana and *Shodhana* (purification) are the principles of treatment in *Sthoulya*.^[4]

Udvartana is a method that involves massaging the entire body below the neck in a direction that is opposite to the hair's orientation by applying pressure.^[5] *Sharira Parimarjana* is another name mentioned by Charaka.^[6] *Chakrapani* defined it as a procedure done after *Abhyanga* in the context of daily regimen.^[7] The utility of *Udvartana* has found better results in the management of *Sthoulya*. It does *KaphaVatahara* (subsides *Kapha* and *Vata*), *Medo vilayana*-(Liquefies fat), *Sthirakarana of anga* (brings stability in the body) etc.

Ayurveda explains millets in detail under *Dhanya Varga*. Millets have been given many synonyms like, *Kudhanya* (Inferior among cereals), *Kshudra Dhanya* (small sized cereals), and *Trina Dhanya* (grass derived cereals). In general millets are *Kashaya Madhura in rasa*, *katu vipaka*, *shita veerya*, *laghu ruksha guna* and *kapha pittahara kledashoshak* in action.

Primary Objective

1. To evaluate role of millets in the management of *Sthoulya* by *udvartana* therapy.

Methodology

This article is based on a review of ayurvedic texts. Materials related to *Sthoulya*, *udvartana*, *panchakarma* obesity millets and other relevant topics have been collected. The main ayurvedic text used in this study are *charaka samhita shushruta samhita ashtanga hrudya Samhita* and available commentaries on these texts. Various websites and scientific journals have also been referred to collect information regarding current researches on the relevant topics.

Sthoulya

Atisthoola has been defined as a person who on account of the incoordinate increase of fat and flesh, is disfigured with pendulous, buttocks, belly and breasts and whose increased bulk is not matched by a corresponding increase in energy.^[8]

Sthoulya has been narrated as *Dushya* dominant disorder i.e *Medoja Vyadhi*. Acharya Charaka has accepted "Ahara" as most common pathogenic factor for *Medovridhi* in *Sthoulya* whereas Sushruta has accepted *Amadosha*.^[9] According to Acharya Sushruta, *Madhura Ama Annarasa* is produced due to excessive intake of *Kapha vardhaka* within the body. Snigdhansha of this *Anna Rasa* causes *Medovruddhi* at the cost of other *Dhatu*s, which produces excessive stoutness.^[10] According to Acharya Charaka, Due to obstruction of *Srotasa* by vitiated *Meda* the *Koshthagata Vata* gets entrapped into the alimentary tract and whips up the *Jatharagni* which rapidly digests the ingested food materials which are in turn readily absorbed by it and causing the production of *Ama*.^[11] This *Ama* goes directly to *Meda Dhatu* & lead to increase and accumulation of *Meda* by creating *Medodhatwagnimandya*. Vitiated *Kapha* & *Meda* causes *Medovaha Sroto Sanga*, leading to *Margavrodha* of *Vata*. This vitiated *Vata* circulates in whole body especially in the *Koshta*, later on causing *Jathragni Sandhukshana* which results in *Kshudha adhikya* & *ShighraJarana of Ahara*. *Medodhatwagni Mandhya* takes place due to which the capacity to digest *Medamsa* by the *Medodhatwagni* is hampered, leading to the formation of *Apakwa Meda* which is incapable of nourishing the *Uttar Dhatu*. Acharya Madhaavakara & Acharya Bhava Misra have explained the same *Samprapti* as stated by Acharya Charaka. While explaining the *samprapti* of *Sthoulya*, all the Acharyas have emphasized on *Margavarodha* by the vitiated *Meda* & an uncontrolled excessive formation of the *Meda Dhatu* without any subsequent increase in energy.

Differnet *shodhan* modalities have been mentioned like *vamana*, *virechana*, *basti* for *Sthoulya*.^[12] In *bahya shodhan*, *udvartan* being considered as a remedy for *Sthoulya*. Many acharya have mentioned *bahyashodhan*

for the management of *Sthoulya*. *Udvartan* has been mentioned by *vagbhata* with its property like *kaphara medohara* and removes foe tide odours restricts the process of excessive sweating and alleviates the aggravated *dosha* by function.

Udvartana

Procedure

The *Udvartana* is done by dusting medicated powder on the body, adhered by massage with some pressure in the opposite direction of hair. The following are some of the steps involved in this procedure:

Preparation of the Patient^[13]

Udvartana is done after bowel and bladder evacuation preferably in morning hour. It should be done on an empty stomach and prior to bathing. After saying a prayer, the therapist should begin the process.

Purvakarma

It includes preparation and complete examination of the patients. The detailed patient examinations including *Prakriti*, *Vikriti* and disease is investigated and documented. It is observed whether the patient is indicated or contraindicated for *Udvartana* treatment. Following that, the materials required for the treatment are prepared. For *Abhyanga*, the appropriate oil should be obtained. The medicated oil elected for *Abhyanga* is warmed in *Purvakarma*. Patients should lie down on the *Abhyanga* table while wearing minimal clothing. For 15-20 minutes massage is given to whole body.

Pradhan Karma [Main Procedure]

Ruksha Udvartana with powder of *shyamaka*, *kodrava*, *cheenaka*, *Gaveduka*, *Yavanaala* 250gm. *Udvartana* is performed in four different positions. Supine, left lateral, prone, and right lateral positions are among them. Initially, the patient is instructed to lie down in a supine position and do *Udvartana* on the anterior area of the body. The left lateral posture is the second, and *Udvartana* is performed on the right lateral part of the body. The third posture is the prone position, in which *Udvartana* is applied to the posterior part of the body. Finally, the patient is instructed to take a right lateral position and perform *Udvartana* on the left lateral side of the body. By applying pressure to each area of the body below the neck, *udvartana* is performed.

Pashchat krama

To remove the powder, the patients' bodies are washed with sterile cloth, sterile cotton after *Udvartana* avoiding water. The patient is covered with a thin coat of medicinal oil and prepared for steaming after wiping off the *churna*. Following the *Udvartana*, complete body steaming is performed using decoctions of *Dashamoola* and other herbs.

Duration - For 3-5 minutes, each region of the body is massaged in its proper position. The duration of *Udvartana* is usually 30-45 minutes.

Post procedural Activities

- 1-Patient is advised to take rest for at least 15 minutes.
- 2-After a minimum of 1 hour, the patient is allowed to take a bath with lukewarm water.

Millets

Ayurveda, has provided a detailed explanation in dhanya varga. millets have been known by a variety of names like *Kudhanya*, *Kshudra Dhanya* and *Trina Dhanya*. Ayurveda literature reflects that, apart from the dietary component millets have been used as a therapeutic agent as well.

While considering millets *Kodrava* (Kodo millet) is *Madhura-Tikta rasa*, Medoroga (Diseases due to excessive lipids) due to *Kleda Shoshana* (Dries up excessive moisture), *Ruksha* (Reduces unctuousness), *Lekhana* (scraping), *Vatarakra* (Increases Vata), due to *Pitta-Rakta Shamaka* (Pacifies vitiated Pitta and Blood), *Vishartha* (Affected due to poison) as it is *Visha Hara* (Pacifies effects of poison) and other *Kapha-Pitta Pradhana Roga* (Diseases due to vitiated Kapha and Pitta).

Cheenaka (Proso millet) Jun DY et al. (2014)^[14] reported on anti-adipocytic activity toward adipocytes which is useful in Obesity.

Gaveduka (Adlay millet) is *Katu-Madhura Rasa*, *Karshyakaari* (emaciating) *Kapha Hara* (pacifies Kapha Dosh), *Sangrahi* (absorbs excessive fluids and helps for normal formation of faeces and enhances digestion) *Dhatu Shoshaka* (dries up the tissues).

Yavanaala (Sorghum vulgare - Sorghum) *Avrishya* (Antaphrodisiac), *Ruchya* (enhances taste perception), *Trishghna* (pacifies excessive thirst) *Kledaghna* (pacifies excessive moisture content. Shen RL et al. (2015)^[15] reported on anti-obese properties of Sorghum.

DISCUSSION

Udvartana is having the Gunas of *Kapha-Meda Vilayana* property. Millets are best advised in *Kaphaja Roga*. It is always necessary to avoid the use of millets in *Vataja Roga* as it aggravates the condition. Based on this understanding the gross indications for use of millets are, *Sthoulya* (obesity) and other *santarpanjanya vyadhi*. Millets having *lekhana* (Scraping) and *Kledashoshana* (dries up excessive moisture) action which is useful in treating *Santapanjanya Vyadhi*.

Thus, by doing *udvartana* with powdered *bharad churna* of these millets, the *Virya* of these millets enters the body due to *laghu* and *ruksha Guna* of millets with *katu vipaka* and *tikta rasa* and its influence on *Romakupa*. It then opens the Mukha of Sira, resulting in Paka of Kapha and Medas. There will be *Drava guna Vriddhi of Kapha and Medas*. As a result, *Nirharana of Vikrita Kapha Dosh*, *Dushya* along with *Medo Dhatu* (alleviation of vitiated *Kapha* and *Meda*) and removes *aavarana* and

srotorodha will take place ultimately resulting in *laghutva of Sharira*.

The triglycerides in the subcutaneous tissues will break down into fatty acids as a result of increased friction to all regions of the body. *Udvartana* can help in normalizing lipid profile (dyslipidemia), also in reduction of weight; BMI, body circumference and skin fold thickness as it possesses *Shoshana* (absorption) and *Kapha-Medohara* (alleviation of vitiated *Kapha* and *Meda*) properties.^[16] Due to central Massage, these fatty acids are transported to the liver, where they are converted into bile. As a result, bile reabsorption will be reduced, allowing the lipid circulating in the circulation. As a result, when an obese individual has hyperlipidemia, *Udvartana* promotes bile excretion in the feces as one of the treatments.

CONCLUSION

Modern sophisticated sedentary lifestyle is giving rise to various major lifestyle issues such as obesity. *Udvartana* by Millets is one of the best and important *Panchakarma's* allied procedures to manage *Sthoulya* (obesity). Millets are best to be used in these *Santarpanjanya Vikara* and *Kapha-Pitta Doshaja Vikara* due to their *lekhana* (Scraping) and *Kledashoshana* (dries up excessive moisture) action which is useful in treating *Santapanjanya Vyadhi*. *Udvartana* by millets also plays a part of *Dincharya* protocol and can be done on a daily basis. *Udvartana* therapy by using various millets is a cure for a wide range of problems, not just obesity and overweight disorders.

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