

WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.453

Volume 13, Issue 5, 1443-1452.

Review Article

ISSN 2277-7105

REVIEW ARTICLE OF UDVARTANA ON OBESITY

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Article Received on 18 Jan. 2024,

Revised on 08 Feb. 2024, Accepted on 29 Feb. 2024

DOI: 10.20959/wjpr20245-31610



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ABSTRACT

Obesity has been mentioned as abnormal or excessive fat accumulation that might affect health, which can be compared with Sthaulya mentioned in Ayurvedic classes. Sthaulya has been mentioned by Acharya Charak among Ashtauninditiya Pursha. Obesity has become an epidemic today and it is essential to understand the effect of Obesity sites. Obesity is a common lifestyle / metabolic disorder of males and females both. The prevalence of obesity is higher in urban areas than in rural populations of India, due to the sedentary lifestyle and overeating habit. Sthaulya is a disease afflicting "Medovaha Srotas" in the form of Avushohrasa, Javoparodha. Kriccha Vvavava. Daurbalya, Daurgandhya. [1] It is included in Ashtauninditiva Pursha which is revealed by symptoms of General lassitude, Day time hypersomnalism, Protuberant abdomen, Menstrual disturbance and sterility in fatty female, etc. These features can be correlated closely to Obesity.^[1] *Udvartan* is narrated in many Samhitas as a part of dinacharya (daily

regime of personal hygiene) and part of treatment for obesity & emaciation and many dermatological diseases. It is a very significant procedure in panchakarma.

INTRODUCTION

Ayurveda, the science of life, has given much importance to primary and secondary prevention of diseases. In Samhita the various procedures are implemented under Dinacharya and Ritucharya, which is a part of Swasthavritta Palana Siddhanta, and explains the prevention of diseases at different levels. The procedures like *Udvartana*, *Abhyanga*, Vyayama, are explained in *Dinacharya* with an aim of maintaining one's own physique. By Considering the benefits of *Udvartana*, it is an ideal procedure for many diseases like obesity, dermatological diseases (and other *khapha vata* related conditions). *Udvartana* is defined in a very short way which requires it to be highlighted and described broadly. Hence, this review deals with *nirukti* (derivation), *paribhasha* (definition), classification, benefits, procedure, and modern review of *udvartana* and hypothetical reasoning of its action on the basis of samanya-vishesh siddhanta.

Obesity is a medical condition in which excessive body fat accumulates to that extent that it stimulates adverse effects on health. In *Charak Samhita, Ati-Sthulya* is explained under *Asthanindaniya- Purusha*. *Sushruta Samhita* has also mentioned *Sthaulya roga* and its pathogenesis on the basis of *Dhatvaagni Mandya*. *Sthaulya* is considered as a condition of the body that results from vitiated *Meda dhatu*. *Vridha Vaghbatta* and *Vagbhatta* have elaborated the pathogenesis of *Sthaulya* on the basis of formation of *Ama* and altered *Dhatu parimana*. *Madhava nidana* has elaborated the pathophysiology of the *Roga* on the basis of increased *Meda. Yogaratnakar* too adopted the name *Medoroga* to explain *Sthaulya*. [2]

AIMS AND OBJECTIVES

To Review *Udvartana* on Obesity.

MATERIAL AND METHODS

Various Ayurveda compendia with their commentaries by different others, various text books journals, dissertations, web search and peer review journals were revised to acquire the present knowledge of this topic.

AYURVEDIC REVIEW

Paribhasha

Udvartana

The word *Udvartana* is self-explanatory. The simple procedure of massaging the oil or powders of herbs in direction opposite to the hair follicle over the body is called *Udvartana*.

Udvartana is a procedure of applying powders of herbs to the skin and rubbing it to form wicks with gentle strokes directing towards the heart, with the palm evenly spread on the surface of the skin.

Sthaulya

Sthaulya is mentioned in Charak Samhita, Sushruta Samhita, Madhav nidan, and also in other

Ayurvedic classics like Yogaratnakar, Sharanghdhar Samhita etc as *Medodosha*.

Formation of Meda Dhatu

रक्तमुष्मणा चाभिसन्यक्तंम स्थथरतां प्राप्य मांसंथयात् थवोष्मणा पक्वमेव तत्। थवतेजोऽम्बुगुणस्थथगधोद्रिक्तं मेदोऽभिजाय्ते || (Ch.Chi. 15/29-30)

The Ahara Rasa which is absorbed from Pakavashaya reaches in the heart by the conduction of Samana Vayu. This Rasa is again being thrown into circulation from the heart to first through large channels and then through smaller and smaller ones by the help of Vyanavayu The Rasa ultimately reaches to the Sthayidhatus, This contains nutrition for all dhatus The nutrition thus accepted is acted upon by Dhatvagni to convert into Medo Dhatu. [3]

As Per Acharya Charaka

Due to obstruction of *Srotas* by *Meda*, the *Vata* moving mainly into *Aamashya*, augments the Agni and absorbs the food. Thus the obese person digests food speedily and craves food tremendously. Over eating produces excessive growth of Meda Dhatu, this leads to Sthulata.[4]

As Per Acharya Sushruta

Aama Rasa is produced by Kapha Vardhaka Ahara, Adhyasan, Divaswapna. The Madhur Bhava Ama Rasa moves within the body. The Snigdhansha of that Ama Rasa lead to Medo *Vriddhi*, which produces excessive tubbiness. [5]

1. Charaka Samhita (Ch. Sa.)

Acharya Charaka in Sutrasthan (Su) explains Udvartana in the context of Matrashitiya Adhyaya in Swasthavritta *Chatushka* as Sharira *Parimarjana*. He says that Dourgandhyam gauravam tandra kandumalrochkam|Swedvibhstata hanti sharirparimarjnam|| Ch. Su. 5/93.

Parimarjnam udvartnam eti/ Chakrapani It destroys Sharira Dourgandhya (Body odour), Gurutwa (heaviness), Tandra (drowsiness), Kandu (itching), Arochaka (anorexia), Sweda (sweating), etc.

2. Astang Hridaya (A. Hr.)

Udhvartnam kaphaharam medasah pravilayanam/ Stirikaran anganam twakprasadkaramparam/ A. Hr. Su. 2/15 As per Acharya Vagbhata, *Udvartana* normalises *Vikruta Kapha* and liquefies the *Meda dhatu*. It provides firmness to body, smoothness to skin and increases the complexion of the skin.

3. In Sarvanga Sundari Vyakhya, Arundatta describes

Estasadhantwakthandwarudvartanam vidhite – udvartanam eti/

Pravilayanam – dravikarnam dravikrutya medasah shoshanamitityaartha/

i.e. Pravilayana refers to the dravikarana of Medas followed by making it Shoshana.

MORDEN REVIEW

In the 21st century obesity is emerging as an important health problem in the world. In all over the world about 1.9 billion adults are overweight. In India 10% of population are affected by morbid obesity i.e. BMI above 40. Obesity is a medical condition in which excess body fat accumulates to an extent that it may have negative effects on the health of an individual. Substantial evidence suggest at the energy intake and body weight is regulated by both endocrine and neural component that ultimately influence the energy intake and expenditure This complex regulatory system small imbalance between energy intake and expenditure ultimately have large impact on body weight. [6]

Etiological Factors

- a. Physiological Observed temporarily during puberty, pregnancy
- b. Pathological It is again divided into three viz-
- 1. Exogenous Caused due to overeating & physical inactivity
- 2. Endogenous –Due to Endocrine disorders i.e. Cushing's Syndrome, Hypothyroidism, Polycystic ovarian syndrome, Hypoglycemia, Frohlich's syndrome, etc.
- 3. Idiopathic When every possible causative factors of Obesity has been investigated and find out.^[7]

Classification

According to Sushruta, Udvartana can be classified as two types:

- 1. Udgharshana
- 2. Utsadana

1. Udgarshana (Reinforced friction)

Ud + gharshana gatradi garshanam Asnehaoushadh churnadibhi gharshanam/

Su.Sa. Chi. 24/52-56

When dry powders of the herbs with no addition of oil or any liquid are rubbed against the body then it is referred as 'udgharshana'. It gives benefits of Vata Shamana, helps in removing Kandu- Sphota- Pidika, Sira shodhaka, Twak gata Agni vardhaka, and stimulates Bhrajaka Pitta. Friction of the body with powder excites the heat of skin (twakasth agni), destroys itching and rashes etc.

2. Utsadana (Rubbing)

Snehakalkena udgharshnam utsadanam

Su.Sa. Chi. 24/52-56

The procedure of rubbing against the body with dry powder mixed with oil, is called 'utsadana' i.e. friction of the body with drugs mixed with sneha or medicine mixed with oil or other dravya in the form of kalka is called Utsadana. The benefits of this are: it improves the complexion of skin, gives good appearances, cleans, and beautifies.

The treatment advised for medasvita in Bheshaja Yojana Chatushka, while describing Ashtaunindita Adhyaya.

Charaka describes two variety of Udvartana named as

- o Snigdha udvartanao
- o Ruksha udvartana
- Snigdha Udvartana^[8]: In the context of treatment of Krisha (lean and thin) persons, in which oil is used in the procedure.
- Rukhsha Udvartana^[9]: In the context of treatment of Sthula (obese) persons, in which dry powder of herbs with no addition of oil is used during the procedure.

Beneficial effects of Udvartana

It has been said in the Ayurvedic literature that, Udvartana opens the circulatory channels, facilitates the metabolic activity and improves the complexion in the skin. By virtue of these therapeutic effects one can obtain the following benefits from Udvartana treatment.

- 1. Alleviates vitiation of kapha dosha.
- 2. Reduces excess of fat in the body.
- 3. Corrects imbalance of Vaata dosha

- 4. Promotes the excellence of skin.
- 5. Increases the stability of extremities.
- 6. Leads to sense of lightness in the body.
- 7. Eliminates the bad body odour.
- 8. Reduce excessive sweating.
- 9. Prevents untimely drowsing.
- 10. Cures itching sensation.

Procedure of Udvartana

Position of the Patient

Patient wearing a minimum copin is advised to lie down on the Abhyanga table. There are four positions in which Udvartana is carried out. These include supine, left lateral, prone and right lateral positions.

Snanat purva twakgharsnarth upyujyamananam churnam amlakyaadi

Kaphaharam medas pravilapnam shtirikaranam anganam twakprasadkaram param

Venimadhav Shastri Joshi

Ayurveda Mahakosha, The best time for Udvartana, as mentioned in daily regimen, is in the early morning i.e. between five and nine and before bathing. Bladder and bowel should be emptied. Blood pressure, pulse rate, heart rate and respiratory rate should be recorded.

Udvartana should begin from legs, arms, chest, abdomen, and back and gluteal region and should be in upward direction.

i.e. centripetally. Generally the duration is 30 - 45 minutes. After Udvartana, the patient should rest for 15 minutes, to relax. After relaxation, hot water bath is Advised. Udvartana is an external process Hence, knowledge about the structure and The function of the skin, anatomy and marma vidnyan (important vital points of the body) is essential.

Indication for Ruksha Udvartana^[10]

Kulatta Churna (powder)	To reduce accumulated subcutaneous fat and to decrease excessive sweating
Kolkulattadi Churna ^[11]	In obese patients, neurological conditions
Triphala Churna	In obese patients, skin diseases
Nalpamaradi Churna	Eczema, fungal infections, diabetes mellitus
	associated with itching

Nimba Churna	Skin diseases
Ushira, Chandana, Musta,	Excessive sweating, Obesity
Padam Churna	
Nimba, Khadira, Guduchi,	Skin diseases, obesity
Aragvada, Karanja Churna	
Shailayadi Churna ^[12,13]	Obesity

Rubbing – Mode of Action

Rubbing helps in the absorption of effusions, relief of blood stasis and carrying away the morbid products in the system. Deep pressure massage helps the interchange of tissue fluids by increasing the circulation in the superficial vein and lymphatic. The pressure helps the contents of the vessels move towards the heart, if applied strongly and quickly, it has a stimulating effect. It increases nutrition in all tissues. It removes fatigue, carrying away the increased products of combustion. Also it assists the absorption of serous fluid.

Important qualities of rubbing are

It has a great influence on the muscles.

It gives them a mechanical stimulation causing them to contract

It increases circulation mainly in the veins. The alternate pressure and relaxation brings fresh blood to the part

It improves the nutrition of the particular areaIt raises temperature locally

It increases elimination of waste productsIt increases secretion and absorption

It improves the condition of the nervous system by stimulating the cutaneous nerve endings It influences the general metabolism when applied on large areas

Helps to break down thickening and adhesions in sub-acute and chronic conditions Also helps in the reabsorption of inflammatory products and absorption of fat in fatty tissues.

Liquefaction of subcutaneous fat (Medavilayana)

Udvartana process possesses kapha-meda vilayana property. If any Ruksha drug is used as udvartana dravya, the effect of medavilayana occurs. To enhance this medavilayana property, katutikta rasatmak, ushnaviryatmak laghu ruksha, tikshna gunatmak udvartana dravya should be selected. We can explain the medovilayana process on the basis of samanya vishesh siddhant.

Sarvada sarvabhavanam samanyam vrudhikaranam Hrashetuvishecha pravruti ubhaystu || Ch. Su. 1/44

According to this siddhant, udvartna process acts as kriya vishesh and Udvartandravya acts as gunavishesh as well as kriya vishesh (quite opposite properties of dravya i.e used drug).

Acharya Sushruta mentions

Siramukhviviktatwam twaksthasthaangech tejanam Su. Chi. 24/51-56

It clearly indicates that udvartana dilates siramukh. We may say here that it also dilates veins i.e. sira and it increases the temperature of the skin (tvakastha Agni). Thus, Udvartana increases complexion of skin (twak prasadan) if we use either snigdha or ruksha dravyas according to skin type in a proper

- 1. Gharshan (friction) of drug to twacha (skin) occurs. This leads to increase in local ushma (temperature) due to which dilatation of sira (veins) and siramukh vishodhan (relieves obstruction of skin pores) occurs.
- 2. Twakastha agni gets stimulated. This leads to absorption and digestion of the drug and further to pravilayana of medha dhatu (liquefaction of subcutaneous fat) below twacha may occurs.
- 3. Medadhatu and kapha have ashraya ashraya bhav (connection or correlation between khapha and meda dhatu). They have snigdha, sheet, guru, sthira, and picchila guna (properties).
- 4. If selected, dravyas have katu tikta rasa, ushnavirya, ruksha, laghu, sukshma guna (properties) which are quite opposite to that of medadhatu and kapha.
- 5. In sthaulya there is an increase in vikrutmedadhatu which increases kleda.
- 6. Due to kleda srotas (channels) get obstructed and abaddhamedadhatu (lose fat) is formed. This may lead dhatuagnimandya (decreased molecular level fire of medadhatu)
- 7. Due to the ushna, tikshna, laghu property of the dravya and procedure, it acts as a strotogami and medogami. Due to ruksha guna of dravya and ruksha udvartana, kleda gets absorbed (Shoshane ruksha|| Hemadri) Thus the abaddhatva of medha and kapha might have reduced.
- 8. Due to all these properties there may be an increase in meda dhatu agni. Thus, here dravya acts as guna vishesh (opposite properties of dravya and medadhatu).

DISCUSSION

The principal objective of Ayurveda is not only to cure but to prevent diseases. In Different classics Udvartana is mentioned as a daily regimen as well as the part of treatment also. Many qualities are described about Udvartana. An important property is, it reduces kapha, vata and excess accumulation of meda. This literary study gives us a proper idea about the procedure and its benefits.

CONCLUSION

The present study leads to the following conclusion. Udvartana possesses kaphamedohar property. It reduces general symptoms of increased khaphavata doshas and improves the health of patients.

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