

PREVENTION AND MANAGEMENT OF THE LIFE STYLE DISORDERS AS PER AYURVEDA W.S.R. TO DIABETES AND OBESITY

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ABSTRACT

Today's fast moving and competitive era has led to number of diseases. A diseases related with the way an individual or group of individuals lives are called as lifestyle diseases. Lifestyle diseases include atherosclerosis, heart disease, and stroke; obesity and type 2 diabetes; and diseases associated with smoking and alcohol and drug abuse. Changing lifestyle and food habits, with lack of physical activity have contributed to a developing pattern of obesity among the population. Due to increased focus on career and long working hours, people use to have an irregular meals and that too largely junk which is low in vitamins and minerals and high on fats and carbohydrates from their staple diet. Lack of exercise due to shortage of time and Junk food hits the individual with a sugar rush followed by an emotional

drop that remaining parts for a few hours. It additionally influences concentration and behavior. Young people also suffer from deficiency of vitamins, calcium, minerals etc. Hence, it also affects the capacity of body to cope with infectious diseases by lowering immunity of a person. Ayurveda provides better arrangement in the form of legitimate dietary administration, lifestyle advises, *Panchakarma* like detoxification and bio-purification procedures, medicaments, and rejuvenation therapies. The comprehensive methodology of

Ayurveda, regarding the patient in general, which means intervention designated toward complete physical, mental, and otherworldly prosperity makes this science a magnificent choice in lifestyle disorders.

KEYWORDS: Lifestyle Diseases, dietary management, *Panchakarma*, *Dinacharya*, *ritucharya*, *sadvritta*, *nidra*.

INTRODUCTION

Ayurveda is derived from “*Ayur*” meaning “life,” and “*Veda*,” meaning “knowledge.” Ayurveda means the “science of life.” It takes a holistic view of human beings, their health, and illness. It aims at positive health, which has been defined as a well-balanced metabolism coupled with a healthy state of being. Lifestyle disorders are defined as diseases associated with the way people live their life. This is normally instigated by alcohol, drug, smoking abuse as well as lack of physical activity and unhealthy eating.^[1] Lifestyle Diseases (LSDs) are diseases that appear to become more industrialized. The occurrence of Lifestyle Diseases (LSDs), also known as non-communicable diseases (NCD) is primarily based on the daily habits of people and result of an unfortunate relationship with their environment. It is a medical condition or disease which is non-communicable and non-transmissible but it likely to continue gradually unless intervened. The four main types of Lifestyle diseases are (a) cardiovascular diseases (CVDs) like coronary artery diseases (CAD) such as angina and myocardial infarction stroke, heart failure, hypertensive heart disease, cardiomyopathy, heart arrhythmia, valvular heart disease, carditis, peripheral artery disease), (b) Cancers, (c) Chronic respiratory diseases such as chronic obstructed pulmonary disease, bronchitis, occupational lung disease, pulmonary hypertension and Asthma and (d) diabetes. The other Lifestyle diseases include Hypertension, Obesity, Osteoporosis, Alzheimer’s disease, Arthritis, Atherosclerosis, Chronic Liver disease or Cirrhosis, Ano-rectal diseases like constipation, Fissure-in-Ano and so on.^[2] If we review the factors involved in Ayurveda pathogenesis of these disorders they are mainly vitiated *Kapha dosha*, *dushita rasadhatu*, *agnidushti* and *amapradosh*, *Mansa*, *Meda dhatu shaithilya*. Mainly diseases due to *sanchaya pradhana* or *santarpanajanya avastha*.^[3] That means all these diseases are associated with defective metabolism of body which can be rectify by implementing art of living of ancient era as mentioned in Ayurveda like *dincharya*, *ritucharya*, *sadvritta*, *ahara*, *nidra*, *panchakarma*, medicaments and yoga. The main diseases caused due to defective metabolism are obesity and diabetes, all other lifestyle diseases are somewhat associated with these

diseases. Recent studies have reported that globally, more than 1.9 billion adults are overweight and 650 million are obese. Approximately 2.8 million deaths are reported as a result of being overweight or obese. In India, more than 135 million individuals were affected by obesity.^[4] The number of people with diabetes in India increased from 26.0 million (95% UI 23.4–28.6) in 1990 to 65.0 million (58.7–71.1) in 2016.^[5] Also Acharya *charaka* considered *atishaulya purusha* as *nindita purusha* because such person prone to other diseases associated with obesity.^[6] That's why obesity and diabetes are series issues of contemplation.

AIM- To review Ayurvedic management for lifestyle disorders like obesity and diabetes.

SECONDARY OBJECTIVE- To study causes and pathogenesis of lifestyle disorders.

MATERIALS AND METHODS

The Literary material related to obesity and diabetes has been collected from Several *Ayurvedic* texts like *Charakasamhita*, *Sushrutsamhita*, *Ashtang Sangraham*, *Ashtanga Hridayam*, *bhavprakash* etc.

DISCUSSION

Changing Lifestyles

The altered population structures often go hand in hand with broader lifestyle changes associated with urbanisation, increased income and car ownership, altered social and family structures, and more sedentary daily activities and occupations. Open markets and more disposable income make low and middle income countries (LMICs) attractive emerging markets for numerous products including tobacco and alcohol. Thus, lifestyle risk factors for lifestyle disorders likely to undergo changes include smoking, alcohol consumption, and excess body weight, via changes in diet and physical activity, all of which are established carcinogens. The major contribution of these five factors, as well as four others which are unsafe sex, air pollution, indoor smoke, and contaminated injections, already account, in lifestyle disorders.^[7]

This changing lifestyle and diseases accompanying with it can be controlled by adopting lifestyle stated in Ayurveda which is as follows-

Dincharya

- **Dant dhavan** - This is done by using herbal sticks of *kashaya*, *katu*, *tikta rasa*. *Kashaya rasa* herbs have astringent action on gums. *Katu* removes all plaque and *tikta rasa* acts on *pitta* or acid action. Daily use of this *danta dhavana* may overcome dental problems and maintains teeth and gum health.
- **Jivha nirlekhana** - Cleansing of tongue maintains sensation of taste, removes foul smells, heaviness of tongue and keeps mouth fresh and maintain oral health.
- **Anjana**- *Anjana* has cleansing action and maintains health of eye; it removes excess of *kapha* and helps in smooth functioning of eyes and eyelids.
- **Nasya** - *Nasya* is carried out by using *anu tail*. It improves skin texture, strengthens of neck and chest region, increases beauty of face and freshness mouth.
- **Gandush** - Gargling gives light feeling to mouth by removing *kapha* and *vata*. This prevents throat infections. Gives strength to vocal function.
- **Dhoomapana**- Inhalation of medicated smoke removes *kapha* and *vata dosha sanchaya* from throat area, nasal area, cleaning of sinuses, prevents infections, keep nasal and pharyngeal track healthy.^[8]
- **Abyanga**- Everyday oil massage should be done all over the body. Specially, oiling of head, ear and feet is recommended.^[9] It has *rasayana* effect, maintains body tone, makes muscle action smooth by acting as *anulomana* on *vata dosha*, it relieves stress and strain of muscles, and maintains tone of skin and body. Thus, prevents from aging. Nourishes eyes, maintains digestive fire, tightens musculature and maintains body shape and adds longevity to life. *Vatanulomana* is important factor which attribute in prevention of almost all diseases. Maintain physical as well as mental health. Prevent depression and *rasadushtijanya* diseases like *hridroga*.^[8]
- **Vyayama** - Exercise gives strength, energy, high working capacity, light feeling. Increases digestive power. *Vyayama* prevents accumulation of fats.^[9]
- **Mardana** - *Mardana* is done after exercise which relaxes muscles of body prevents vitiation of *vata* due to over exercise.
- **Udvardana** - *Udvardana* is massage by medicated herbal powders. It dissolves excessive fats, strengthens the body parts and skin.^[9]
- **Snana** - bath by hot water is a type of *parisheka swedana*. *Sweda* gives lightness to body, relieves stiffness and *vataghna* in nature.^[8]

Hrutnetrajivhashravanopdeha, *galtalu shosha* and *madhuryam aasya* are the symptoms mentioned as *purvarupa* in *prameha* so, *kledasanchiti* in these places can be vanished with the help of *dant dhavan*, *jivha nirlekhan*, *anjan*, *gandush* and *kaval dharana* etc. *swedo angagandha*, *shithilangata* can be controlled with the help of *vyayam*, *udvartana* and *snana*.

Thus, *Abhyanga*, *Vyayama*, *Mardana*, *Udvartana*, *Nasya* all these procedures of *dinacharya* prevent Lifestyle disorders like Diabetes, Obesity, Cardio vascular disease.^[10]

Ritucharya

Adopting *ahara vihara* according to *ritu* i.e. *ritucharya* is significant in preventing life style disorders.

- *Hemanta ritucharya*- During this season, the environment remains cold, along with cold wind. So, *agni* become powerful to digest heavy food. If adequate food is not made available to the body, this strong *agni* start to digest *deha dhatu*.^[11] In this *ritu ruksha*, *laghu aahara* taken by obese or diabetic person will be helpful in reducing body fat. Along with that *niyudha*, *padhaghata*^[12], *vyayam*, *bhumigruha*, *garbhagruha*, *agarulep*, *ushnavastra dharana* will also supportive in reducing fat.^[11]
- *Shishira ritucharya*- should followed according to *Hemanta ritu*.
- *Vasanta ritucharya*- *Shleshma* accumulated in *hemanta ritu* gets liquefied by hot rays of the sun in *vasant ritu*, which in turn disturbs the digestive power and ultimately causes many diseases. Therefore, in *vasanta* season the purification procedures like *vamana* (emesis) should be done. One should avoid heavy, sour, unctuous and sweet food items and should not sleep during day time. *Vyayam*, *udvartan*, *dhuma*, *kavala* and *anjana* should be done in this *ritu*. *Yava*, *godhuma*, *laghu*, *ruksha aahara* should be consumed.
- *Grishma ritucharya*- In *grishma ritu* sun, by its rays, excessively dries up the environment. So, excessive physical exertion should avoid in this *ritu*.
- *Varsha ritu*- In a weak body, during the period of dehydration, *agni* is also weak, and deterioration further due to vitiated *vata* and other *doshas* during rainy season. One should consume *yava*, *godhum*, *shali yush* and *laghu ahara*, *Madhvikaristhambu*, water mixed with honey in this *ritu*. *Udvartana*, *udgharshana*, *snan*, *ghandhamala dharan* should be done in this *ritu*.
- *Sharada ritucharya*- when a body habituated to cold and rain is suddenly subjected to the heat of sun-rays in the *sharada ritu*, accumulated *pitta* in the body often gets aggravated.

Panchakarmas like *virechana* and *raktamokshana* should be done in this *ritu*. *Hansodak* which is neither *abhishandi* nor *ruksha* should be consumed.^[11]

- *Rituharitaki* should be considered for building up bodies immunity to prevent lifestyle diseases and other infectious diseases.

Table 1: *Rituharitaki*.^[13]

<i>Ritu</i>	<i>Haritaki anupana</i>
<i>Shishira</i>	<i>Pimpali</i>
<i>Vasanta</i>	<i>Madhu</i>
<i>Ghrishma</i>	<i>Gud</i>
<i>Varsha</i>	<i>Saindhav</i>
<i>Sharada</i>	<i>Sharkara</i>
<i>Hemanta</i>	<i>Sunthi</i>

Sadvritta- *Sadvritta* includes guidance about the dressing, speaking, social behavior, personal and social hygiene etc.

Nidra- Like proper diet, proper sleep is also essential for the maintenance of body. Corpulence and emaciation are specially conditioned by proper or improper sleep and diet. Day sleep is contraindicated in a person with excessive fat.^[14]

Aahara – Only after the digestion of previous meal one should take next meal. It should be compatible to him/her. Diet should be according to season and age. It should be balanced both in quality and quantity. One should take plenty of roughage in form of fruits and vegetables.^[15] *vishkir* and *pratud mansa*, *jav saktu*, *mundga yusha*, *tikta shaak* like *patol*, *puran shali*, *shastik* and *trun dhanya*, *madhu mishrit aahara* should be consumed by a person with excessive fat.^[16]

Panchakarma - Diseases are the outcome of disturbed *Doshas* and thus *Panchakarma* treatment is used for all types of diseases. Some of the diseases that are commonly treated are;

1. *Vamana*- *Kapha* predominant diseases, Obesity, thyroid, diabetes, asthma, PCOS (polycystic ovarian syndrome) and skin diseases.
2. *Virechana*- *Pitta* predominant diseases, Hyperacidity, skin diseases.
3. *Basti*- *Vata* predominant diseases, Arthritis, spondylitis etc.
4. *Nasya*- Migraine, headache, sinusitis, hair fall, premature graying of hair, frozen shoulder, cervical spondylitis, sleeplessness, allergies, etc.
5. *Raktamokshana*- *Rakta* predominant diseases Gouty arthritis etc.,

6. *Shirodhara*- Sleeplessness, headache, dandruff, psychological diseases etc.^[17]

Yoga

One studies have confirmed the useful role of yoga in the controlling diabetes mellitus. Fasting and postprandial blood glucose levels descended significantly. Good glycaemic status can be maintained for long periods of time. There was a bringing down of medication necessity and the incidence of acute complications like infection and ketosis was significantly reduced. There were significant changes in the insulin kinetics and those of counter-regulatory hormones like cortisol. There was a fall in free fatty acids proposing a better insulin sensitivity and decrease in insulin resistant, with a probable defensive effect on beta cell function. There is a beneficial effect on the co-morbid conditions like hypertension and dyslipidemia. Thus, yoga is advantageous in the management of lifestyle disorders like obesity and diabetes.^[18]

Medicaments- Single and compound drugs used for obesity:

Table 2.

Single drugs	Compound drugs ^[19]
<i>Madhuk</i>	<i>Triphala</i>
<i>Vidanga</i>	<i>Vidangadi loha</i>
<i>Agnimantha</i>	<i>Takrarishta</i>
<i>Chitraka</i>	<i>Bilwadi panchamula</i>
<i>Nagara</i>	<i>Triphalyadi churna</i>
<i>Guggula</i>	<i>Dashang guggula</i>
<i>Guduchi</i>	<i>Trishyunadi guggula</i>
<i>Haritaki</i>	<i>Lauhyarishta</i>
<i>Rasanjana</i>	<i>Arkadi gana</i>
<i>Vacha</i>	<i>Triyushnadi gana</i>
<i>Musta</i>	<i>Gomutrapaki Haritaki</i>
<i>Yavakshara</i>	<i>Lodhrasava</i>
<i>Shilajatu</i>	<i>Amruta Guggulu</i>

- *Basti: Rooksha, Ushna Teekshna Basti* – Enema with drugs that are sharp, unctuous and hot.
- *Rooksha Udvartana* – powder massage with herbs having dry quality.
- Honey (*Madhu*):-
 - a) Intake of *Guduchi* (*Tinospora cordifolia*), *Musta* (*Cyperus rotundus*), *Triphala* i.e. combination of *Haritaki* (*Terminalia chebula* Linn.), *Bibhitaki* (*Terminalia belerica* Roxb.) and *Amalaki* (*Emblica officinalis*) with honey.

- b) Intake of *Vidanga* (*Embelia ribes*), *Nagara* (ginger), *Yavaksara* (*Kshara* prepared from Barley), *LohaBhasma* with honey and powder of *Yava* – barley and *Amlaki*.
- c) Administration of honey along with decoction of *Bilvadi panchamula* (roots of *Bael*, *Oroxylum indicum*, *Gmelina arborea*, *Stereospermum suaveolens* and *Clerodendrum phlomidis*)
- Administration of *Shilajatu* (asphaltum/mineral pitch)
 - Administration of the juice of *Agnimantha* (*Clerodendrum phlomidis*).^[19]

CONCLUSION

The preventive measure for obesity as per Ayurveda is to follow *Dinacharya*, *Ritucharya*, *Pathyahar sevana* and *shodhana karma*. Diet and lifestyle plans assume key part in influenced patients of lifestyle disorders like obesity and diabetes. *Ayurvedic* drugs are giving high ground in treatment part on modern allopathic medicines on every aspect and they proved to be very effective in maintaining lifestyle disorders.

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