INTRODUCTION
In the present era of modernization and fast life, techniques have made people busy hence living stressful life. People are taking more junk and fatty foods, cold drinks, consumption of fast foods having high calories. Availability of every comfort of living has reduced physical activity thus increase in body fats along with cholesterol in the body, which invites the disorders like obesity, dislipidemia, hypertension, heart disease, etc. Obesity, Hyperlipidemia is recognized as one of the greatest risk factors for coronary artery diseases as well as ischemic heart disease (IHD). These are the leading causes of morbidity and mortality in developed and developing countries and leading health problems in India also. Obesity is a metabolic disorder, generally occurring in affluent societies, because of imbalance between energy intake and energy expenditure. It is associated with mortality and predisposes to the development of fatal diseases like Diabetes, Hypertension, MI, etc. This is an unanneutritional and metabolic disorder. Several factors like physical, behavioural, cultural, metabolic, genetic factors are related to obesity. It is also expressed in terms of body mass Index

ABSTRACT
Obesity, a complex interplay between environmental and genetic factors and is associated with significant morbidity and mortality. It is one of the important risk factor and contributor for cardiac and cerebrum-vascular deaths globally since ancient time. In Ayurveda AcharyaCharak described AshtaNinditaPurusha and emphasized in detail about two pathological condition vizAtithula and Atikarshya . Atithula purusha is worst among them due to its complicated pathogenesis, variable complication and treatment. Obesity exacerbates a large number of health related problems, both independently and in association with other diseases. The basic principles of treatment of Sthaulya Roga (Obesity) as described in Ayurvedic classics & modern texts of medicine are Nidanaparivarjana & Apatarpanachikitsa in the form of consumption of low caloric diet and increase in exercise. Lekhniyamahakashaya, Varunadigana, & other hypolipidemic drugs in the form of sama& shodhanachikitsa can be used in the treatment of obesity.

Key word: Obesity, hyperlipidemia, Ashtanindita, Apatarpana,
(BMI). BMI of 30 or more in males and 28.6 or more in females indicates obesity. In Ayurvedic system of medicine, theo-besity is considered under the title of Medoroga, which stands amongst Astanindityaroga as Sthaulyaroga. Sthaulya is a SantarpanjanyaVikar.

Cause of Obesity (Modern & Ayurveda)

In modern science, Many Cause of obesity is:
1. Genetic factor
2. Environmental factor :- life style behavior like diet , physical activity
3. Social: - poverty, lower level of education
4. Cultural: - type of food way of cooking in different.
5. Drugs: -steroids, antidepressants.
6. Diseases: -hypothyroidism, cushion syndrome.

Endocrine factor of obesity: Obesity is associated with several endocrine diseases like
1. Hypothyroidism
2. Cushing syndrome
3. Polycystic ovarian syndrome
4. Hypothalamic disorder
5. Diabetes mellitus

The Ayurvedic classics describe various endogenous and exogenous causes for medhodhatuvriddhi(excess depositions of fat tissue in body).

1. Dietary Causes:KaphavardhakaAahara
2. Life style and behaviour cause: - seden-
tary life style , lack of physical exercise , excessive sleep , sleeping during day especially soon after meal, lack of sexual life.
3. Psychological causes : lack of thinking , anxiety
4. Genetic:- “beejswabhavat”

Pathogenesis of Obesity (According to Ayurveda) : In Ayurveda, Abnormal composition of is Medodhatu considered as Medodosha & subsequently as Medoroga. Derangement of Agni or digestive powder leads to production of Ama, which disturbs Dhatvagni of Medodhatu & blocks the proper formation of further Dhatu. Improperly formed Medodhatu accumulates in the body causing Sthaulya roga.Accumulated Medo cause disturbance to the action of Vata, which cause increased appetite , due to ChalaGuna of Vata.patients therefore eat more & the entire food is abnormally converted into Medodhatu

Ayurvedic Management of Hyperlipidemia & Obesity

The basic principles of treatment for Sthaulya Roga (Obesity) can be categorized in three groups:
1. NidanaParivarjana (Avoidance of causative factors)
2. General principles of management, which include
   A. Apatarpanachikitsa
   B. Sodhanachikitsa
   C. Samanachikitsa
3. Pathya&Apathya (Modified Diet & Life Style)

Hypolipidemic drugs/lipid regulating drugs-

According to Ayurveda,(charak) lekhan drugs can be correlated to hypolipidemic drugs .lekhan drugs are described in lekhniyamahakshaya[2] Drugs of Lekhniyamahakshaya–
musta ,kutha, haridra , daruharidra,vacha, ativisha, katrohini, chirbilva, hemvati ,chitrak,..


Other hypolipidemic drugs ;- vidanga, ag-nimantha,gugglu,aamakari,haritaki, vibhita-ki , rsone , vacha , arjuna, shigru , madanphala ,parisha, karvellaka ,kulatha,.

Some pharmacological and clinical studies reported in Ayurvedic and other herbs are described below:-
**1. Triphla (Aamliki (Embilica officinalis), Haritaki (Terminalia chebula), Vibhitaki (Terminalia belerica))**

One study which evaluated the herbal formulation TPL in mice showed that the body weight was found to be reduced when compared with the control animals (Rasool et al., 2000). Gallic acid is a phenolic compound of TPL which is selected as a bioactive marker due to its easy availability, and its anti-obesity property (Sharma et al., 2009). Accordingly, a randomized, double-blind, placebo-controlled, clinical safety and efficacy trial at Shahed University in collaboration with Endocrinology and Metabolism Research Institute (EMRI) has been conducted for evaluation of the activity of TPL in obesity implementation (unpublished data).

**2. Aganimantha (Premna obtusifolia)**

The drug Aganimantha has a katu tikta rasa, rukshanguna, ushanvirya, katuvipaka. On the basis of the quality of the drug, the pharmacodynamic action is considered. The drug is consisting of katu and tikta rasa, which consists of vayu and agni and vayu and aakash maha-bhuta, respectively. Due to the predominance of akash, vayu and agni, the kaphagets subsided. Subsequently, the rukshaguna counteracts kapha. Katu rasa directly combat sthauylaja and tikta rasa acts on meda. Therefore, both the rasa (tikta & katu) are responsible to encounter sthauylayadirectly. Aganimantha (Premna obtusifolia R.Br.) showed significant therapeutic value in the treatment of obesity. It gave encouraging result when administered with scheduled diet and exercise. It is necessary to mention here that the drug is effective on LDL HDL ratio, which is known as atherogenic index. In respect to LDL HDL ratio, the drug was significant after treatment of 6 and 9 months. This drug was effective on cholesterol HDL ratio after treatment of 6 and 9 months. Hence, the drug is effective for the treatment of obesity.

**3. Guggulu (Commiphora mukul)**

The use of guggulu in the treatment of obesity has been mentioned in Susruta Samhita, Astangahridaya, and Charak Samhita. The resin of the Commiphora mukul tree has been used in ayurvedic medicine for more than 2000 years to treat a variety of ailments. Studies in both animal model and humans have shown that this resin termed gum guggul can decrease elevated lipid levels. The stereoisomers E&Z-guggulsterone have been identified as the active agents in this resin. Recent studies have shown that these compounds are antagonist ligands for the bile acid receptor farnesoid X receptor (FXR), which is an important regulator of cholesterol homeostasis.

**4. Arjuna (Terminalia arjuna)**

The drug Arjuna is having laguru kshaguna, kshaya rasaa, katuvipaka, seetvirya, on the basis of quality of drug, the drug acts as medhochar (6). Clinical evaluation of this botanical medicine indicates it can be of benefit in the treatment of coronary artery diseases, heart failure, and possibly hypercholesterolemia. Terminalia’s active constituents include tannins, triterpenoidsaponins (arjunicacid, arjunolic acid arjungenin, arjunglycosides) flavonoids (arjunone, arjunolone, luteolin), gallic acid, ellagic acid, phytosterols, calcium, zinc. Ayurvedic texts have described Arjuna as “Hrid-dya”, which means something beneficial to the heart.

**5. Shigru (Moringa oleifera)**

The drug Shigru is having lagurukshatikshanguna, katutikta rasaushanviryā, katuvipaka.
on the basic of quality of drug shigru is used in lekhan karma\(^{(7)}\). Three varieties of moringa explained in Ayurvedic text books – Shyama (black variety), Shveta (white variety) and Rakta (red variety). It is also called as Madhushigru. Black variety of shigru is the most common. It is good for heart, Cardic tonic. It helpful to decrease fat and obesity.

6. **Parish** (Thespesia populnea): The drug is having laguruksha guna, kashaya rasa, seet virya, katuvipaka. on the basic of quality of drug, the drug acts as medhohar.\(^{(8)}\)

7. **Aralu** (Ailanthus excelsa): The drug is having ruksha guna, tikta kashaya rasa, seet virya, katuvipaka. on the basic of quality of drug, the drug is used in lekhan karma.\(^{(9)}\)

**Samana Chikitsa:** Vyoshadiguggulu Amritadhguggulu\(^{(10)}\), Navakguggulu\(^{(10)}\) Lohaaristha\(^{(11)}\), vidangadhlaunta, Tyushnadhlaunta, Vidangadichurna, Triphlaguggulu, Medoharguggulu etc can be used in samanachikitsa.

**Shodhan Chikitsa:** Shodhan chikitsa in the form of lekhanbasti (Enema therapy) has been used for the management of obesity (Sthaulya). Lekhanbasti\(^{(12)}\) is described in Sushruta Samhita. Other Shodhan Chikitsa in the form of Vaman (medicated vomiting), Virechan (medicated purgation), Udavartan (herbal powder massage) have been used for the management of obesity.

**Ayurvedic lifestyle in Obesity (Sthaulya):**
- Exercise “stop dieting and start moving”, walking, swimming, running or rowing aerobic exercise, stationary cycling/bicycling.
- YogaSana:–Suryanamskar, pawannuksaasan, utthanpadaasan, naukasan, bicycling.
- **Praanayam:** breathing exercise and meditation.

**Ayurvedic diet in Obesity (Sthaulya):** Bitter, pungent astringent taste, dry, hot, sharp, scaring qualities, Vegetables like carrot, cabbage, cauliflower, Pulses or dried beans– lentils, mungdaal, Fruits–apples, pears pineapple, lemon water with honey, Whole grains, whole oats.

**Avoid diet in Obesity (Sthaulya):** Avoid sweet, sour, salty and oily food, Rice, wheat, pasta and sweet milk products. Pizza, hot dog, burgers, Cakes, Cookies, pastries, chocolates etc.

**CONCLUSION**

Obesity is the one and only disease, which is gaining more and more attention of scientists at global level. Obesity is a disease of middle & upper middle class due to their ignorance towards health in reference to faulty diet pattern and sedentary lifestyle. Ayurvedic classics give sufficient focus on obesity (Sthaulya). Sthauya is a disorder of Santarpananidana with the involvement of mainly medodathu and kapha-pardhanatrisosha. Excessive indulgence in oily and fatty food, sendentary lifestyle, mansika factors along with genetic pre-disposition play a major role in aetiogensis of Sthauya. Medo as dushya, Kapha & Avrutta Vata as dosha and Medo-dhathvagnimandhya are main responsible factors in pathogenesis of Sthauya. So that type of drug/therapy should be recommended which pacify these factors and it can be accomplished by combination of Tiktarasa (bitter) pradhana. There is no specific treatment for obesity, only diet & exercise can play important part. The main line of treatment of Sthauya is Nidhan-parivarjana & Apatarnpana. Apatarnpana consists of dietary regimens, treatment modalities which decrease the fat from the body.
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