Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. Obesity is a leading but preventable cause of death worldwide. Incidences are increasing in adults and children due to faulty dietary habits including junk foods, lack of physical exercises and sedentary life style. Obesity increases the risk of many diseases such as cardiovascular diseases, type 2 diabetes, depression and hypertension etc. The main treatment for obesity consists of dieting and physical exercise. Dieting includes right choice of food substances which fulfill the energy requirements without increasing the body fat. In Ayurveda, this condition is named as Atisthula or Medo-roga. An extensive description pertaining to Medo-roga and its treatment is available in classical texts. In Ayurveda, treatment for obesity is based on guru (diet fulfilling energy requirements) and aptarpana (diet reducing body fat) chikitsa siddhanta (treatment modality).

Keywords: Obesity, Medo-roga, Role of Ayurveda

Prevalence of Obesity

In 2014, 58% of women and 65% of men were overweight or obese. Obesity prevalence has increased from 15% in 1993 to 26% in 2014. Obesity in India has reached epidemic proportions in the 21st century, with morbid obesity affecting 5% of the country population. Obesity being a major risk factor for cardiovascular disease has become a major health hazard and its prevalence is rising in India due to unhealthy, processed food and sedentary life.

Obesity in Ayurveda

Obesity has been named as Atisthula and Medo-roga in Ayurveda. It is described under the Sanatarpanotha vikara (diseases occurring due to high calorie diet and lack of physical exercises). Acharya Charaka has described the causes of obesity and these are:

- Overeating (Atisampurna)
- Indulgence in high calorie diet (Guru, snigdha, madhura)
- Not performing physical and mental exercises (Avayayama, achinta)
- Due to inheritance (Beeja-dosha)

All these causes are still relevant and considered as main cause of obesity. In present time, a combination of excessive food intake and a lack of physical activity are considered the main cause of obesity. A limited number of cases are primarily due to genetics, medical reasons or psychiatric illness.

Sthaulya (obesity) is considered as one of the eight types of undesirable conditions as described by Acharya Charak\textsuperscript{a}. He has also mentioned 8 reasons explaining why obese person should be considered as unhealthy.

- An obese person is prone to many diseases so life expectancy is decreased. (Ayurhrasa)
- He is not enthusiastic for any kind of work (Javoparodha).

Data Sources

This article is based on a review of Ayurvedic and modern texts along with research related to obesity and its management. Different Ayurvedic classical books as Charaka Samhita, Sushruta Samhita, Astanga Samgraha, Astanga Hridaya etc. were referred to fulfil this part.

INTRODUCTION

Obesity is an abnormal accumulation of fat usually 20% or more over an individual’s ideal body weight. People are generally considered obese when their body mass index (BMI) is 30kg/m\textsuperscript{2}, with the range 25-30kg/m\textsuperscript{2} defined as overweight\textsuperscript{1}. In Ayurveda, obesity (Medo-roga) is described as a condition in which buttocks; abdomen and breast become flabby due to fat accumulation and move while walking\textsuperscript{2}.

The incidences of obesity are increasing very rapidly. In 2015, 600 million adults and around 100 million children were obese\textsuperscript{3}. Obesity is most commonly caused by a combination of excessive food energy intake and a lack of physical activity. Some genetic factors, medical reasons or psychiatric illness also causes obesity. In Ayurveda, high calorie food, frequent eating, avoidance of physical work and sleeping in day time are described as causative factors of obesity (Medo-roga).

Diet and life style play important role in management of obesity. Indulgence in physical work and use of low calorie food are mentioned in the treatment of Medo-roga. Various herbs such as Triphala (combination of Terminalia chebula, Terminalia bellirica and Emblica officinalis in equal parts.), Sunthi (Zingiber officinale), Amalaki (Emblica officinalis), Guduchi (Tinospora cordifolia), Guggulu (Commiphora mukul), Madhu (Honey) and Munga (a type of cereal) etc. should be used by obese person.

AN INNOVATIVE APPROACH FOR MANAGEMENT OF OBESITY THROUGH AYURVEDA: A REVIEW

Neha Tiwari *, Akhilesh Srivastava 2, Rajesh Manglesh 3

1PG scholar of Rog Nidan, R.G.G.P.G. Ayu. College & Hospital, Paprola, India
2Sr. lecturer, R.G.G.P.G. Ayu. College & Hospital, Paprola, India
3Reader, R.G.G.P.G. Ayu. College & Hospital, Paprola, India

Received on: 12/07/17 Accepted on: 20/08/17

*Corresponding author
E-mail: drneha1091@gmail.com

DOI: 10.7897/2277-4343.085261

ABSTRACT

Obesity is a leading but preventable cause of death worldwide. Incidences are increasing in adults and children due to faulty dietary habits including junk foods, lack of physical exercises and sedentary life style. Obesity increases the risk of many diseases such as cardiovascular diseases, type 2 diabetes, depression and hypertension etc. The main treatment for obesity consists of dieting and physical exercise. Dieting includes right choice of food substances which fulfill the energy requirements without increasing the body fat. In Ayurveda, this condition is named as Atisthula or Medo-roga. An extensive description pertaining to Medo-roga and its treatment is available in classical texts. In Ayurveda, treatment for obesity is based on guru (diet fulfilling energy requirements) and aptarpana (diet reducing body fat) chikitsa siddhanta (treatment modality).

Keywords: Obesity, Medo-roga, Role of Ayurveda

INTRODUCTION

Obesity is an abnormal accumulation of fat usually 20% or more over an individual’s ideal body weight. People are generally considered obese when their body mass index (BMI) is 30kg/m\textsuperscript{2}, with the range 25-30kg/m\textsuperscript{2} defined as overweight\textsuperscript{1}. In Ayurveda, obesity (Medo-roga) is described as a condition in which buttocks; abdomen and breast become flabby due to fat accumulation and move while walking\textsuperscript{2}.

The incidences of obesity are increasing very rapidly. In 2015, 600 million adults and around 100 million children were obese\textsuperscript{3}. Obesity is most commonly caused by a combination of excessive food energy intake and a lack of physical activity. Some genetic factors, medical reasons or psychiatric illness also causes obesity. In Ayurveda, high calorie food, frequent eating, avoidance of physical work and sleeping in day time are described as causative factors of obesity (Medo-roga).

Diet and life style play important role in management of obesity. Indulgence in physical work and use of low calorie food are mentioned in the treatment of Medo-roga. Various herbs such as Triphala (combination of Terminalia chebula, Terminalia bellirica and Emblica officinalis in equal parts.), Sunthi (Zingiber officinale), Amalaki (Emblica officinalis), Guduchi (Tinospora cordifolia), Guggulu (Commiphora mukul), Madhu (Honey) and Munga (a type of cereal) etc. should be used by obese person.

Data Sources

This article is based on a review of Ayurvedic and modern texts along with research related to obesity and its management. Different Ayurvedic classical books as Charaka Samhita, Sushruta Samhita, Astanga Samgraha, Astanga Hridaya etc. were referred to fulfil this part.
• Sexual life is also affected (Krichrayavayavata).
• In-spite of being overweight, he feels weakness (Daurbalya).
• He may have bad body odour (Daurngandhiya).
• He sweats more and can’t tolerate hunger and thirst (Swedabadha, Kshutipasadahikya).

Obesity as a major health problem

Obesity is a major public health problem due to its association with serious chronic diseases such as type 2 diabetes, hypertension and hyperlipidaemia (high levels of fats in the blood that can lead to narrowing of blockages of blood vessels). Complications fall into two broad categories: those due to increased fat mass (such as osteoarthritis and obstructive sleep apnea etc.) and those due to increased number of fat cells (diabetes, cancer, cardiovascular disease, non-alcoholic fatty liver disease).

A 2016 review supported excess food as the primary factor. Total food energy consumption has been found to be related to obesity. Most of this extra food energy comes from sweetened drinks such as soft drinks, fruit drinks, iced tea, energy drinks, potato chips and fast foods. A sedentary life style plays a significant role in obesity. This is primarily due to increasing use of mechanized transportation and a greater prevalence of labour saving technology in the home. In both children and adults, there is an association between television viewing time and risk of obesity. Obesity has become a public health and policy problem because of its prevalence, costs and health effects.

Ayurveda emphasised on healthy body weight. One should neither be obese nor malnourished. But when comes in comparison between obese and malnourished, Ayurveda considers that being obese is more harmful as it increases the risk of many physical and mental conditions.

Management of obesity

Modern treatment of obesity includes:
1. Dietary plan
2. Physical exercises
3. Use of anti-obesity drugs
4. Bariatric surgery

Dietary and lifestyle changes are considered as main treatment for obesity. Diet programs may produce weight loss over the short term and long term. Low carbohydrates and low-fat diet is beneficial. Some drugs are also used for treatment of obesity. The most effective treatment for obesity is bariatric surgery. But these surgeries are costly and risky too.

In Ayurveda, treatment of obesity is described very systemically. Various single herbs, compound formulations, exercises and lifestyle modification have been mentioned. In Ayurveda management of any disorder is divided into 3 parts:
1. Nidana Parivarjana (Avoidance of causative factors)
2. Shodhana (Purification therapy for removal of body toxins)
3. Shaman (Medication therapy)

Shodhana

Ruksha, Ushna and Tikshana Basti (administration of medication through anal route) are also suggested by Acharya Charaka. Ruksha Udhvatan (massage with herbs’ powder) is indicated for the management of Shhauyā10.

An effort has been done by Chaturvedi sonal et al. to study the role of Lekhana basti and Virechana karma in the management of obesity. According to this, Basti provides better results than Virechana in the management of obesity11.

Shamana

It includes use of medication which reduces Vaya, Kapha and Meda. Administration of Guru and Apatarpana substances which possess additional vata slesma and meda nasaka properties is considered as an ideal for Sanshamana therapy. According to Acharya Charaka, an obese person should be advised to do more exercise and physical and mental work.

A study has been done by Patil Y.R. et al. on a classical preparation “Karshniya Yavagu” to evaluate its efficacy in the management of obesity. Intergroup comparison of Karshniya Yavagu and starch capsule 500mg with low calorie diet was done. Karshniya Yavagu showed better results as compared to starch capsule 500mg with low calorie diet12.

Single Drugs which can be used for obesity are:
• Vayavidanga (Embelia ribes)
• Santhi (Zingiber officinale)
• Kshara (Alkalis)
• Madhu (Honey)
• Guggulu (Commiphora mukul)
• Mustaka (Cyperus rotundus)
• Katuki (Picrorrhiza kurroa)
• Chitraka (Plumbago zeylanica)
• Haridra (Curcuma longa)

An experimental study was performed on Rats show; Cyperus rotundus stopped weight gain and in vitro, stimulated lipolysis in 3T3F442 adipocytes13.

In a study of hyperlipaemic mice on a high-fat diet, daily doses of water extract of Picrorhiza kurroa significantly reduced total cholesterols, triglycerides and LDL levels after 12 weeks14. A study has been conducted by Gupta Twinkle et al. on Panchakola Phant containing Santhi, Pippali, Pippalimula, Chavya, and Chitraka in the management of mandagnijanya Sthaulya with special reference to obesity. It showed good efficacy in relieving both subjective and objective parameters15.

Compound drugs are
• Triphaladi kwatha16
• Mustadi kwatha16
• Kushtadi churna17
• Trayushnadi mantha17
• Triphala churna18
• Shuddha guggulu18

Others compound drugs are Medohara guggulu, Navaka guggulu, Trigunadi guggulu, Arogyavardhini vati, Chandraprabha vati, Punarnavadi kwatha and Shilajatvadi vati.

In Ashtanga Sangraha Krishna Latha, Shankha, Samudraphena, Tattha, Manahshila and Shilojeet are additional dhatu described as Lekhana and Medonashaka. Rasanjana is
what to do
137
i, Charaka
agnijanya Sthaulya with
energy consumption and
responsibility or liability
here should be a balance in cal
y, Varanasi; Reprint,
-
orie
).): 
editor or editorial board members.
for the site content and articles published. The views expressed in articles by our contributing authors are not necessarily
5.
4.
3.
2.
requirement, taking high fibrous diet always remains healthy
doing regular exercises, consuming food as per caloric
followed to attain a healthy weight which says that a person
inhibit physical activity.
the factors that cause excess food e
prevalence and health effects. Efforts should be done to change
Obesity is public health and policy problem because of its
DISCUSSION
Incidence of obesity is increasing day by day due to increase in
energy dense foods and decrease in physical work. Being
overweight and obese can have a serious impact on physical and
mental health. Obesity can reduce life expectancy by upto 9
years. Obese children and young people face the same health
risks as adults. As high calorie diet and physical inactivity are
main cause of obesity, there should be a balance in calorie
consumed and calorie used.
Carbohydrate rich foods like potato and polished rice and oily
and fried foods should be avoided. Whole wheat flour should be
used.
CONCLUSION
Obesity is public health and policy problem because of its
prevalence and health effects. Efforts should be done to change
the factors that cause excess food energy consumption and
inhibit physical activity. Ayurvedic principles should be
followed to attain a healthy weight which says that a person
doing regular exercises, consuming food as per caloric
requirement, taking high fibrous diet always remains healthy.
REFERENCES
2. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, Chapter no. 21/9, p411.
3. “Statistics on Obesity, Physical Activity and Diet” Published
by Health and Social Care Information Centre, England,
2016.
4. “Health Effects of Overweight and Obesity in 195 Countries
over 25 Years” New England Journal of Medicine, June
2017.
5. India Facing Obesity Epidemic: experts” The Hindu, 2007-
10-12.
6. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 23/5-7, p436.
7. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 21/4, p409.
8. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 21/3, p407.
9. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 21/17, p413
10. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 21/24, p414.
11. Chaturvedi Sonal, katura pankaj, Observational study of role
of Lekhana basti and Virechana karma in Sthaulya(obesity),
Yavagu (An Ayurvedic Preparation) in the management of
13. Lemaure B et al. Administration of Cyperus rotundus tubers
extract prevents weight gain in obese Zucker rats. Phytother
14. Lee HS, Yoo CB, Ku SK. Hypolipemic effect of water
extracts of Picrorrhiza kurroa in high fat diet treated mouse.
Fitoterapia 2006; 77:579-584.
15. Gupta Twinkle, Kaur Jagmeet, Sharma Shamma,
Neerajbala, Kapoor Ekta. Clinical Evaluation of Panchakola
Phant in the Management of Mandagmjanyu Sthaulya with
Special Reference to Obesity. International Journal of
16. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 23/10-14, p437.
17. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
Chaukhamba Publications; Edition: 2011, Sutra sthan, chapter
no.15/38, p82.
19. Kashinath Sastri and Gorakhnath Chaturvedi, Charaka
Samhita, Chaukhamba Bharti Academy, Varanasi; Reprint,
2011, Sutra Sthan, chapter no. 21/25-27, p415.
Cite this article as:
Neha Tiwari et al. An innovative approach for management of
obesity through Ayurveda: A review. Int. J. Res. Ayurveda
Pharm. 2017;8(5):137-139 http://dx.doi.org/10.7897/2277-
4343.085261
Source of support: Nil, Conflict of interest: None Declared
Disclaimer: IJRAP is solely owned by Molsha Publishing House - A non-profit publishing house, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJRAP cannot accept any responsibility or liability for the site content and articles published. The views expressed in articles by our contributing authors are not necessarily those of IJRAP editor or editorial board members.