

Sthaulya as a Santarpanottha Vyadhi: A Comprehensive Review of Ayurvedic Pathogenesis and Management

Abstract

Sthaulya (obesity) is one of the major lifestyle disorders described in Ayurveda under the broad category of Santarpanottha Vyadhi, diseases arising from over-nourishment and excessive accumulation of bodily tissues. With rapid urbanization, sedentary lifestyle, altered dietary habits, and psychosocial stress, obesity has emerged as a global health challenge. Ayurveda offers a comprehensive understanding of Sthaulya through the concepts of Agnimandya, Kapha-Medo Dushti, Srotorodha, and Dhatu Vaishamya. Classical texts describe Sthaulya not merely as excessive body weight but as a pathological condition affecting physical, psychological, and metabolic functions. This review explores the Ayurvedic understanding of Sthaulya, its etiopathogenesis, clinical manifestations, complications, and management strategies. Emphasis is placed on Nidana Parivarjana, Ahara, Vihara, Shodhana, Shamana, and Rasayana approaches. The integrative understanding of Sthaulya provided by Ayurveda may contribute significantly to preventive and therapeutic strategies for obesity management.

Keywords: Sthaulya, Obesity, Santarpanottha Vyadhi, Medoroga, Kapha, Lekhana, Ayurveda

Introduction

Obesity has become a major public health concern worldwide owing to its association with diabetes mellitus, hypertension, cardiovascular diseases, dyslipidemia, and metabolic syndrome. According to the World Health Organization, obesity results from abnormal or excessive fat accumulation that presents a risk to health and has reached epidemic proportions globally.[1]

Ayurveda recognizes obesity as Sthaulya or Medoroga and considers it among the Ashta Nindita Purusha (eight undesirable bodily constitutions) described by Acharya Charaka.[2] Sthaulya develops due to excessive nourishment (Santarpana), leading to abnormal accumulation of Meda Dhatu and Kapha Dosha. Unlike the modern concept that primarily focuses on body mass index (BMI), Ayurveda evaluates obesity through qualitative and functional disturbances in Dosha, Dhatu, Agni, and Srotas. Understanding Sthaulya as a Santarpanottha Vyadhi provides a unique framework for prevention and management that extends beyond weight reduction and focuses on restoration of metabolic balance.

Materials and Methods

The present study is a narrative review based on classical Ayurvedic literature and contemporary scientific publications.

36 **Sources of Ayurvedic Literature**

37 Relevant references were collected from:

- 38 • Charaka Samhita
- 39 • Sushruta Samhita
- 40 • Ashtanga Hridaya
- 41 • Madhava Nidana
- 42 • Bhavaprakasha

43 **Sources of Modern Literature**

44 Electronic databases including PubMed, Scopus, Google Scholar, and ResearchGate were
45 searched using keywords such as:

- 46 • Obesity
- 47 • Sthaulya
- 48 • Medoroga
- 49 • Santarpanottha Vyadhi
- 50 • Ayurvedic obesity management
- 51 • Meda Dhatu

52 Articles published in English and relevant Ayurvedic review studies were included.
53 Information was critically analyzed and compiled under thematic headings.

54 **Concept of Santarpanottha Vyadhi**

55 Santarpana refers to excessive nourishment resulting from overconsumption of calorie-dense
56 foods and reduced physical activity. Charaka categorized diseases into Santarpanottha and
57 Apatarpanottha based on nutritional status.[3]

58 Excessive intake of Guru, Snigdha, Madhura, Sheeta, and Picchila Ahara leads to Kapha and
59 Meda predominance. Over time, these pathological changes impair metabolic functions and
60 initiate disease processes.

61 Sthaulya is considered one of the most important manifestations of Santarpana because
62 excessive nutrition directly promotes abnormal Meda accumulation.

63

64 **Nidana (Etiological Factors)[2]**

65 Acharya Charaka enumerated several causative factors responsible for Sthaulya.

66 **Dietary Factors**

- 67 • Excessive intake of Madhura Rasa dominant foods
- 68 • Frequent consumption of Guru and Snigdha Ahara
- 69 • Excessive intake of dairy products and sweets
- 70 • Overeating beyond digestive capacity
- 71 • Repeated eating without proper digestion of previous meals

72 **Lifestyle Factors**

- 73 • Lack of physical exercise (Avyayama)
- 74 • Excessive sleep, especially daytime sleep (Divaswapa)
- 75 • Sedentary habits
- 76 • Reduced occupational physical activity

77 **Psychological Factors**

- 78 • Constant pleasure-seeking behavior
- 79 • Emotional overeating
- 80 • Lack of mental discipline

81 **Genetic and Constitutional Factors**

- 82 • Beeja Dosha
- 83 • Kapha Prakriti
- 84 • Familial predisposition

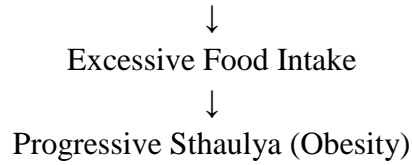
85 **Ayurvedic Pathogenesis (Samprapti)[2,4]**

86 The pathogenesis of Sthaulya begins with prolonged exposure to Santarpaka Nidana.

87 **Figure 1. Ayurvedic Pathogenesis of Sthaulya**



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106 **Step 1: Agnimandya**

107 Excessive Guru and Snigdha Ahara weakens Jatharagni and Dhatvagni, resulting in
108 incomplete metabolism.

109 **Step 2: Kapha and Meda Vriddhi**

110 Impaired metabolism promotes excessive formation of Meda Dhatu and aggravation of
111 Kapha Dosha.

112 **Step 3: Srotorodha**

113 Accumulated Meda obstructs various channels (Srotas), impairing the transport and
114 transformation of nutrients.

115 **Step 4: Vata Prakopa**

116 Due to obstruction by Meda, Vata becomes confined within the Kostha and stimulates
117 excessive appetite.

118 **Step 5: Progressive Fat Accumulation**

119 Increased appetite encourages excessive food intake, leading to further Meda accumulation
120 and perpetuation of the disease cycle.

121 **Samprapti Ghataka**

Component	Involvement
Dosha	Kapha dominant with Vata involvement
Dushya	Meda, Mamsa, Rasa
Agni	Jatharagni and Medodhatvagni Mandya
Srotas	Medovaha Srotas
Srotodushti	Sanga
Udbhava Sthana	Amashaya
Vyakta Sthana	Sarva Sharira
Roga Marga	Bahya

122 **Clinical Features**

123 Charaka described characteristic manifestations of Sthaulya including:[2]

- 124 • Excessive pendulous movement of buttocks, abdomen, and breasts
- 125 • Increased body bulk
- 126 • Excessive sweating
- 127 • Increased appetite
- 128 • Excessive thirst
- 129 • Dyspnea on exertion
- 130 • Reduced physical endurance
- 131 • General weakness despite obesity

132 These symptoms indicate metabolic inefficiency despite excessive nutritional reserves.

133 **Complications of Sthaulya**[2]

134 Ayurvedic texts describe several adverse consequences of obesity.

135 **Daurbalya:** Functional weakness despite excessive body mass.

136 **KrichchhraVyavaya:** Impaired sexual performance.

137 **Alpayu:** Reduced lifespan.

138 **Daurgandhya:** Body odor due to excessive sweating.

139 **Swedabadha:** Abnormal sweating patterns.

140 **Jvara and Associated Disorders:** Predisposition to multiple chronic diseases.

141 Modern studies correlate obesity with:[5,6]

- 142 • Type 2 diabetes mellitus
- 143 • Hypertension
- 144 • Dyslipidemia
- 145 • Coronary artery disease
- 146 • Non-alcoholic fatty liver disease
- 147 • Obstructive sleep apnea
- 148 • Osteoarthritis

149

150 **Principles of Management**

151 Ayurvedic management aims not merely at weight reduction but at restoration of Dosha
152 equilibrium and metabolic correction.

153 **Nidana Parivarjana**

154 Avoidance of causative factors remains the cornerstone of therapy.

155 This includes:

- 156 • Restriction of calorie-dense foods
- 157 • Avoidance of daytime sleep
- 158 • Promotion of regular exercise
- 159 • Stress management

160 **Ahara Chikitsa**

161 Foods possessing Laghu, Ruksha, Katu, Tikta, and Kashaya qualities are recommended.

162 **Pathya Ahara**

- 163 • Yava (barley)
- 164 • Kodrava
- 165 • Mudga
- 166 • Takra
- 167 • Kulattha
- 168 • Shyamaka

169 **Apathya Ahara**

- 170 • Excess sweets
- 171 • Refined carbohydrates
- 172 • Excess dairy products
- 173 • Fried foods
- 174 • Sugar-sweetened beverages

175 **Vihara Chikitsa**

176 Lifestyle correction plays a central role.

177 Recommended measures include:

- 178 • Daily exercise (Vyayama)
- 179 • Brisk walking
- 180 • Yoga
- 181 • Pranayama
- 182 • Avoidance of prolonged sitting

183 **Shodhana Chikitsa**[7]

184 Shodhana is particularly useful in Kapha-Meda dominant individuals.

185 **Vamana:** Removes aggravated Kapha from its principal site.

186 **Virechana:** Facilitates elimination of Pitta and metabolic toxins.

187 **Lekhana Basti:** Reduces Meda accumulation and corrects Vata imbalance.

188 **Shamana Chikitsa**

189 Several Ayurvedic formulations are traditionally employed.

190 **Commonly Used Drugs [8]**

- 191 • Triphala
- 192 • Guggulu
- 193 • Musta
- 194 • Chitraka
- 195 • Shunthi
- 196 • Haritaki
- 197 • Vidanga
- 198 • Loha preparations

199 **Classical Formulations [9]**

- 200 • Triphala Guggulu
- 201 • Navaka Guggulu
- 202 • Medohara Guggulu
- 203 • Arogyavardhini Vati
- 204 • Punarnavadi preparations

205 These medicines exhibit Deepana, Pachana, Lekhana, and Medohara actions.

206 **Contemporary Evidence on Anti-Obesity Ayurvedic Formulations and Herbal** 207 **Extracts**

208 **Triphala** is one of the most extensively investigated Ayurvedic formulations for obesity
209 management. Clinical studies and systematic reviews have demonstrated significant
210 reductions in body weight, waist circumference, BMI, and body fat percentage. Its anti-
211 obesity activity is attributed to improved lipid metabolism, antioxidant action, gut microbiota
212 modulation, and enhancement of metabolic efficiency.[10–12]

213 **Triphala Guggulu** combines the Medohara action of Triphala with the lipid-lowering and
214 Lekhana properties of Guggulu. Clinical evidence suggests beneficial effects on
215 anthropometric parameters and metabolic markers among overweight and obese
216 individuals.[10]

217 **Navaka Guggulu** is a classical Ayurvedic formulation widely prescribed for Medoroga and
218 Sthaulya. Recent clinical studies and research protocols have reported significant reductions
219 in body weight, BMI, and obesity-related symptoms due to its Deepana, Pachana, and
220 Lekhana properties.[13]

221 **Garcinia cambogia (Vrikshamla)** has attracted considerable scientific interest because of
222 hydroxycitric acid (HCA), which may suppress appetite, inhibit de novo lipogenesis, and
223 improve lipid metabolism. Clinical studies indicate favorable effects on weight reduction and
224 dyslipidemia.[14]

225 **Guggulu (Commiphoramukul)** contains biologically active guggulsterones that influence
226 cholesterol metabolism, adipogenesis, and lipid homeostasis. Several studies have reported
227 improvements in serum lipid profile and reduction in obesity-related metabolic disturbances
228 following Guggulu administration.[15]

229 **Amalaki (Emblca officinalis)** exhibits antioxidant, anti-inflammatory, and hypolipidemic
230 activities. It contributes to obesity management by improving insulin sensitivity, reducing
231 oxidative stress, and correcting metabolic dysfunction.[14]

232 **Trikatu** (Pippali, Maricha, and Shunthi) promotes Agni, enhances thermogenesis, and
233 improves bioavailability of therapeutic compounds. Experimental studies suggest its role in
234 reducing fat accumulation and improving metabolic activity.[16]

235 **Sphaeranthus indicus extract**, particularly in combination with Garcinia species, has
236 demonstrated promising anti-obesity activity in recent clinical investigations. Reported
237 benefits include reductions in body weight, BMI, body fat percentage, and serum lipid
238 levels.[16]

239 **Proposed Mechanisms of Anti-Obesity Action**

Drug/Formulation	Proposed Mechanism
Triphala	Gut microbiota modulation, antioxidant activity, lipid regulation
Triphala Guggulu	Lekhana, Medohara, lipid lowering
Guggulu	Guggulsterone-mediated lipid metabolism
Navaka Guggulu	Deepana, Pachana, Medohara activity
Garcinia cambogia	Appetite suppression, inhibition of lipogenesis
Amalaki	Antioxidant and hypolipidemic action
Trikatu	Thermogenesis and metabolic enhancement
Sphaeranthus indicus	Adipogenesis inhibition and lipid lowering

240 **Yoga and Lifestyle-Based Management**[17]

241 Yoga contributes significantly to obesity management through increased energy expenditure
242 and neuroendocrine regulation.

243 Beneficial practices include:

- 244 • Surya Namaskara
- 245 • Trikonasana
- 246 • Bhujangasana
- 247 • Naukasana
- 248 • Pavanamuktasana
- 249 • Kapalabhati
- 250 • Bhastrika Pranayama

251 Regular yoga practice has demonstrated improvements in body composition, insulin
252 sensitivity, and psychological well-being.

253 **Preventive Perspective**

254 Ayurveda emphasizes prevention through Dinacharya and Ritucharya. [18][19]

255 Important preventive measures include:

- 256 • Mindful eating
- 257 • Regular physical activity
- 258 • Adequate sleep
- 259 • Avoidance of overeating
- 260 • Seasonal purification therapies
- 261 • Maintenance of Agni

262 These measures align closely with modern recommendations for obesity prevention.

263 **Discussion**

264 Sthaulya is a multifactorial metabolic disorder resulting from prolonged Santarpana and
265 unhealthy dietary and lifestyle practices. Ayurveda explains its pathogenesis through
266 Agnimandya, Kapha-Meda Vriddhi, and Srotorodha, which together disturb normal
267 metabolic processes. The concept of Medodhatvagni Mandya closely resembles altered lipid
268 metabolism and energy imbalance described in contemporary medicine, while Srotorodha
269 may be correlated with impaired metabolic and vascular functions.

270 The Ayurvedic approach to Sthaulya emphasizes correction of the underlying pathology
271 through Nidana Parivarjana, Ahara-Vihara modification, Shodhana, and Shamana therapies
272 rather than focusing solely on weight reduction. Recent scientific studies have also
273 demonstrated the anti-obesity potential of classical formulations such as Triphala, Triphala
274 Guggulu, Navaka Guggulu, and Guggulu, as well as herbal agents including Garcinia
275 cambogia, Amalaki, Trikatu, and Sphaeranthus indicus. Their beneficial effects on body
276 weight, lipid metabolism, appetite regulation, and adipogenesis provide contemporary
277 support for the Ayurvedic principles of Sthaulya management.

278 **Conclusion**

279 Sthaulya is a classic example of Santarpanottha Vyadhi resulting from excessive
280 nourishment, sedentary lifestyle, and impaired metabolism. Ayurvedic pathogenesis
281 highlights the pivotal roles of Agnimandya, Kapha-Medo Dushti, and Srotorodha in disease
282 development. Management requires a comprehensive approach incorporating Nidana
283 Parivarjana, Pathya Ahara, Vyayama, Yoga, Shodhana, and Shamana therapies. The
284 Ayurvedic understanding of Sthaulya offers valuable insights for the prevention and
285 management of obesity and its associated metabolic complications.

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