RESEARCH PAPER

Clinical Correlation of Nadi Changes during Vamana Karma in Atisthoulya (Obesity): A Case Report

Manjunath B Wali[1], Manjula Kivadasannavar[2*], Sanjaykumar Chhajed[3], Darshan Hiremath[4], Siddappa Sajjanar[5]

[1] PG Scholar, Department of Roganidana evum Vikruti Vigyana, KAHER'S, Sri. B.M. Kankanawadi Ayurveda Mahavidyalaya, PG Studies & Research Center, Belagavi - 590003, Karnataka, India. https://orcid.org/0009-0009-5441-0981

[2*] Professor and Head, Department of Roganidana evum Vikruti Vigyana, KAHER'S, Sri. B.M. Kankanawadi Ayurveda Mahavidyalaya, PG Studies & Research Center, Belagavi - 590003, Karnataka, India. Orcid id: 0000-0001-7477-308X. Email: nidan1819@gmail.com

[3] Nadi Guru, Pulse Diagnosis Training and Research Center Mumbai, Prof. Emeritus, TDU, Bangalore, India.

[4] PG Scholar, Department of Roganidana evum Vikruti Vigyana, KAHER'S, Sri. B.M. Kankanawadi Ayurveda Mahavidyalaya, PG Studies & Research Center, Belagavi - 590003, Karnataka, India.

[5] PG Scholar, Department of Roganidana evum Vikruti Vigyana, KAHER'S, Sri. B.M. Kankanawadi Ayurveda Mahavidyalaya, PG Studies & Research Center, Belagavi - 590003, Karnataka, India.

ABSTRACT

Background

Atisthoulya (obesity) is a multifactorial disorder that associated with significant health risks and is rapidly increasing worldwide. Ayurveda describes Atisthoulya as a Santarpanajanya Vyadhi (diseases caused by excessive nourishment) caused by Kapha-Medo Dhatu predominance and lifestyle factors.

Objective

To evaluate the clinical efficacy of Vamana Karma in the treatment of Atisthoulya and assess Dosha Vaishamyata using Nadi Pariksha.

Case Report

A 52-year-old female presented with weight gain, bilateral knee and ankle pain, and difficulty walking. Previous allopathic treatment showed no significant improvement. Intervention - The patient underwent Snehapana, Abhyanga, Swedana, followed by Vamana using Madanaphala, Vacha, Saindhava, and Madhu. Data was collected via KARADA scan, Nadi Pariksha (SANAAY yantra), and clinical assessment.

Results

Post-treatment data revealed reduction in weight (77.4kg to 74.5 kg), BMI (33.5kg/m² to 32.2kg/m²), body fat percentage (46% to 43.4%), and visceral fat (18.5% to 18%). Comparatively there was variation in percentage of doshas before and after Vamana i.e. Kapha reduced from 32.3% to 29%, Pitta increased from 32.8% to 44.0% and Vata reduced from 35.0% to 29%. Subjective improvements included better appetite, improved sleep, and lightness in the body.

Conclusion

Vamana Karma demonstrates potential as a safe and effective intervention for managing obesity, especially in cases with Kapha-Meda predominance. Objective improvements were validated by instrumental and classical Ayurvedic diagnostic tools.

Keywords: Atisthoulya, Vamana Karma, Obesity, Nadi Pariksha, Kapha–Meda Dushti

How to cite this article: Wali M B, Kivadasannavar M, Chhajed S, Hiremath D, Sajjanar S. Clinical Correlation of Nadi Changes during Vamana Karma in Atisthoulya (Obesity): A Case Report. Int J Drug Deliv Technol. 2026;16(37s): 826-831. DOI: 10.25258/ijddt.16.37s.106

Source of support: Nil.

Conflict of interest: None

1. INTRODUCTION

Obesity is a chronic and multifactorial disorder characterized by excess accumulation of fat, increasing the risk of cardiovascular diseases, diabetes, osteoarthritis, cancers, and psychological issues like depression. It has emerged as a leading cause of morbidity and mortality worldwide. According to global epidemiological data, the prevalence of obesity has more than doubled between 1980 and 2013, affecting both developed

and developing countries.[1] As per WHO estimates, 1 in 6 adults are obese, and around 2.8 million deaths occur annually due to overweight and obesity.[2].The surge is attributed to sedentary lifestyle, poor dietary habits, and globalization of processed food industries, which promote passive overconsumption of energy-dense and nutrient-poor foods [3]. The Body Mass Index (BMI) is the standard metric used to define overweight (BMI ≥ 25) and obesity (BMI ≥ 30).[4] *Ayurveda*, the ancient Indian system of medicine, classifies obesity under *Atisthoulya,* one of the *Ashta Nindita Purusha* (eight congenital deformities), due to its adverse health implications. Charaka explains it as a condition of excessive accumulation of *Medha* (fat) and *Mamsa* (muscle), leading to pendulous body parts.[5]. It is primarily a *Kapha-Medodhatu* dominant disorder and arises due to over-nourishment, sedentary habits*, Snigdha-Ahara, Diwaswapna, and Ajirna.*[7] Therapeutic emesis or *Vamana* Karma is considered a Shodhana Chikitsa and the line of treatment for *Kapha Medhaja Vyadhi*. To identify and assess the imbalance and vitiation of *Tridosha*, *Ayurveda* uses a sophisticated diagnostic technique called *Nadi Pariksha*. It entails analyzing the *Nadi* parameters, including *Gati* (waveform), *Vega* (rate), *Tala* (rhythm), *Bala* (pulse pressure), *Tapamana* (temperature), *Akruti* (volume and tension), and *Kathinya* (arterial stiffness). All the *Nadi Pariksha* parameters were recorded using a special device called SANAAY-*Sahaja Nadi Yantra* which works on the principle of Pulse plethysmography.

2. CASE STUDY

A 52-year-old woman arrived at Roga Nidana's outpatient department complaining of weight gain, along with bilateral knee and ankle pain and trouble walking. According to the patient's past medical history, there was no known history of PCOS, bronchial asthma, diabetes mellitus, or hypertension. The patient underwent systemic and general physical examinations, as well as *Ashtavidha* and *Dasha vidha Pariksha*. Based on the examination results and the patient's BMI of 33.5 kg/m^2, Class I obesity was diagnosed. After basic clinical examinations, investigations, and ECG, the patient was advised *Agnideepana* for 3 days followed by *Snehapana* for 4 days along with *Abhyanga* and *Bashpa sweda* for 3 days.Then finally *Vamana* was conducted as *Pradhana Karma* during which the Dosha *Vaishamyata* and *Nadi* parameters before *Vamana*, during Vamana and after *Vamana* were recorded and documented. After *Vamana Karma Samsarjana Karma* was advised for 5 days.

Table. No. 1: Physical and systemic examination

Appearance	Bulky
Nourishment	Well nourished
Gait	normal
Pallor	Absent
Icterus	Absent
Cyanosis	Absent
Clubbing	Absent
Edema	Absent
Lymphadenopathy	Absent
Per abdomen	Soft, non-tender
Respiratory system	Bilateral air entry equal
Cardiovascular system	S1 and S2 heard
Central nervous system	Conscious, well oriented

Investigations

Hb-13.7 gm%
ESR-45 mm/1st hour
Total cholesterol-210 mg/dl
HDL-55 mg/dl
LDL-131 mg/dl

Table. No. 2: Asthasthana pariksha

Nadi	*Pittaja*
Mala	*Prakrita-2 times a day*
Mutra	*Prakrita-3 times a day*
Jihva	*Alipta*
Shabda	*Prakrita*
Sparasha	*Ushna*
Akruti	*Sthoola*
Drik	*Prakrita*

Table. No. 3:Dashavidha Rogi pariksha

Prakriti	*Pitta*
Vikriti	*Vata-Kapha*
Sara	*Medha*
Samhanana	*Madhyama*
Pramana	*Pravara* Weight-77.4 kg Height-152 cm
Satmya	*Madhyama*
Satva	*Madhyama*
Aharashakti	*Jarana shakti-Madhyama* *Abhyavarana shakti-Madhyama*
Vyayamashakti	*Avara*
Vaya	*Madhyama*

Table. No. 4: Nadi parameters during the course of Vamana

Predominant dosha	**Aggravation-Before**	**Aggravation-During**	**Aggravation- After**
Vata-28.9%	Vata-35.0%	Vata-25.2%	Vata-26.9%
Pitta-40.0%	Pitta-32.8%	Pitta-30.6%	**Pitta-44.0%**
Kapha-31.1%	**Kapha-35.0%**	**Kapha-44.2%**	Kapha-29.1%
Nadi parameters	**Description**	**Description**	**Description**
Vega	79 bpm	122 bpm	122 bpm
Tala	Regular	Regular	Regular
Akruti(Matra)	118	103	103
Akruti(Tanaav)	83	88	88
Gati	Kapha(Hamsa)	Kapha(Hamsa)	Kapha(Hamsa)
Kathinya	200	309	309
Bala	35	15	15

Table. No. 5: Treatment Plan from 5/2/24 to 12/2/24

Day	***Chikitsa***	**Clinical observations and findings**
DAY 1 (05/02/24)	Admission	1. Appetite- Less 2. Bowel – Passed 3. Micturition – Normal 4. Sleep- Normal 5.BMI-33.5
DAY 2 (06/02/24)	*Snehapana with Panchatiktaka guggulu ghrita-100 ml*	*Samyak Snigdha Lakshana* *Vatanulomana +* *Agnidipti +* *Varcha Snigdha –* *Asamhata –* *Anga snigdhata –* *Mardavata –*
DAY 3(07/02/24)	*Snehapana with Panchatiktaka guggulu ghrita-100 ml*	*Vatanulomana +* *Agnidipti ++* *Varcha Snigdha +* *Asamhata –* *AngaSnigdhata +* *Mardavata –*
DAY 4(08/02/24)	*Snehapana with Panchatiktaka guggulu ghrita-100 ml*	*Vatanulomana +* *Agnidipti ++* *Varcha Snigdha +* *Asamhata –* *AngaSnigdhata +* *Mardavata –*
DAY 5(09/02/24)	*Snehapana with Panchatiktaka guggulu ghrita-100 ml*	*Vatanulomana +* *Agnidipti +++* *Varcha Snigdha +* *Asamhata +* *AngaSnigdhata ++* *Mardavata +*

DAY 6(10/02/24)	*Snehapana with Panchatikta ka guggulu ghrita-100 ml*	*Vatanulomana* + *Agnidipti* +++ *Varcha Snigdha* + *Asamhata* + *AngaSnigdhata* ++ *Mardavata* +
DAY 7(11/02/24)	*Sarvanga Abhyanga with Brihat Saindavadi Taila followed by Bashpa Sweda*	Mobilization of *doshas* from *shakha* to *koshta*
DAY 8(12/02/24)	*Vamana with Madanaphal adi yoga*	1.Total input-5760 ml 2.Total output-6700 ml 3.*SamyakVamanaLakshanas-Laghuta,Indriya shuddhi*

Table. No 6: Clinical data of *Vamana Karma*

	Dravya	Quantity given
Akanthapana	*Dugdha*	3120ml
Vamana Yoga	*Madanaphala -pippali churna*-6g *Vacha choorna*-5g *Saindhava*-3g *Madhu*-30 g	
Vamanopaga dravya	*Yastimadhu phanta*	2230 ml
Saindhava jala	410 ml	
Total Input	*Vamana Yoga,Vamanopaga,Saindhava jala*	5760 ml
Total Output		6700 ml
Samyak Vamana Lakshanas	*Antiki -Pittanta Maniki*-5760 ml *Laingiki-Laghuta,Indriya shuddhi*	Total *Vegas*- 6 Total *Upavegas*-5

Table. No.7: KARADA Scan findings before and after treatment

	Before treatment	After treatment
Weight	77.4kg	74.5kg
BMI	33.5 kg/m^2	32.2 kg/m^2
Fat percentage	46%	43.4%
	Whole subcutaneous fat	
Trunk	38%	27.8%
Arm	45.2%	37%
Leg	58.4%	46.2%
Skeletal Fat whole	18.5%	18.1%
Trunk	38%	27.8%
Arm	12.6%	11.8%
Leg	15.2%	15.1%
Visceral Fat	18.5%	18%
Body Age	73 years	69 yrs

3. DISCUSSION

Obesity (Atisthoulya) is more and more understood as a multifactorial disorder involved in hyperexpansion of fat, systemic low-grade inflammation, and metabolic deregulation contributing to insulin resistance, dyslipidemia, cardiovascular disease, type 2 diabetes, osteoarthritis, and some cancers [1–5]; in Ayurveda, as *Atisthoulya*, one of the *Ashta Nindita Purusha (eight undesirables constitutions)*, produced by *Santarpanajanya Vyadhi* (overnutrition disorders) owing to compromised *Dhatwagni, Kapha-Medo Dushti*, and consumption of *Guru, Snigdha, Madhura Ahara*, along with *Diwaswapna* (day sleep) and physical inactivity [6–9]. Here in the current case, typical signs of *Kapha-Meda* predominance—excessive weight, lethargy, sweating, and musculoskeletal pain—were present, and therefore the treatment protocol was designed accordingly by *Shodhana Chikitsa* through *Vamana Karma*, following *Snehapana* with *Panchatikta Guggulu Ghrita* for *Dosha Utkleshana* and greasening of tissues, followed by *Abhyanga* (oil massage) and *Bashpa Swedana* (steam fomentation) to fluidify *Kapha* and mobilize doshas from peripheral tissues into the gut, thus preparing the body for elimination [10–12]; after that, Vamana was performed using traditional emetic drugs like *Madanaphala*, *Vacha*, *Saindhava*, and

Madhu with *Yashtimadhu Phanta* as *Vamanopaga*, which produced *Samyak Vamana Lakshanas* like *Antiki Pittanta Vega* (final bouts with bile), *Laghuta* (lightness of body), and *Indriya Shuddhi* (clarity of senses), indicating successful elimination of *Kapha* and partial expulsion of *Pitta*. Objectively, body composition assessment by KARADA scan showed small but significant improvements, such as decreased weight (77.4 to 74.5 kg), BMI (33.5 to 32.2), body fat percentage (46% to 43.4%), visceral fat (18.5 to 18%), and body age (73 to 69 years), whereas *Nadi Pariksha* with *Sanaya Yantra* depicted decreased *Kapha* (32.3% to 29%) and *Vata* (35% to 29%) with a significant rise in *Pitta* (32.8% to 44%), with an implication for the Ayurvedic understanding of *Pittanta Samyak Vamana* and rekindling of *Agni* [13]. From the modern viewpoint, therapeutic emesis is mediated by activation of vagal and medullary centers, modulation of serotonergic and dopaminergic pathways, and modification of the gut–brain axis, mechanisms that are becoming increasingly involved in the regulation of appetite and energy homeostasis.[14–15] Nevertheless, as a case observation, it cannot be generalized; larger randomized controlled trials, extended follow-up, and incorporation of metabolic assays, gut microbiota profiling, and neuroendocrine biomarkers are needed to determine the long-term efficacy and mechanistic basis of *Vamana* in obesity. Taken in aggregate, this case offers strong support that when practiced following classical *Ayurvedic* tradition and measured using contemporary diagnostic methods, *Vamana Karma* not only supports conventional understanding of *Kapha-Meda* pathology but also harmonizes with contemporary biomedical understanding of obesity, gut-brain communication, and metabolic control, thus providing a strong integrative model for clinical practice and research. The effects of Vamana Karma observed in this study may be partially explained through these mechanisms. The elimination of accumulated Kapha and metabolic waste (Ama) may correspond to reduction in inflammatory load and improvement in gut function, thereby indirectly influencing metabolic regulation and energy homeostasis.Despite these promising findings, this study is limited by its single-case design and short duration. The absence of biochemical markers and long-term follow-up limits the generalizability of results. Future studies should incorporate larger sample sizes, randomized controlled designs, and advanced investigations such as gut microbiome analysis, hormonal profiling, and inflammatory markers to better understand the mechanisms involved.Overall, this case highlights the potential of integrating classical Ayurvedic therapeutic principles with modern biomedical concepts. The correlation between Nadi Pariksha findings and objective clinical outcomes provides a novel perspective for understanding the physiological effects of Vamana Karma in obesity management.

4.CONCLUSION

Obesity continues to rise as a global health challenge, affecting both physical and mental well-being. While modern medicine defines and quantifies it through parameters like BMI and metabolic risk, Ayurveda views it as *Atisthoulya,* a condition rooted in *Kapha-Meda* imbalance and faulty lifestyle practices. Classical texts not only describe its causes and consequences but also offer specific purification therapies, among which *Vamana Karma* holds a central place for Kapha-predominant disorders. With the added support of diagnostic tools like *Nadi Pariksha*, Ayurveda provides a unique way to understand internal imbalances. This case explores how such traditional principles, when applied systematically, can contribute to managing obesity and complement modern perspectives on metabolic health**.**Both subjective improvements and objective reductions in anthropometric and fat-related parameters suggest that *Shodhana* therapy is a potent and holistic approach to tackle *Kapha-Meda* disorders. The doshas assessment by Nadi Pariksha during the course of Vamana was similar to *Kramataha Dosha nirharana* during the *Vamana Karma*.The combination of classical Ayurvedic interventions and modern diagnostic tools like body fat composition analysis provides scientific validation of *Ayurvedic* principles. Further clinical trials with larger sample sizes and longer follow-up are essential to establish the long-term efficacy and metabolic benefits of *Vamana* in obesity and metabolic syndrome and understanding the *dosha vaishamyata* during the course of *Vamana.*

REFERENCES

1. Ng M, Fleming T, Robinson M, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic

analysis for the Global Burden of Disease Study 2013. *Lancet*. 2014;384(9945):766-781. doi:10.1016/S0140-6736(14)60460-8

2. Bluher M. Obesity: global epidemiology and pathogenesis. *Nat Rev Endocrinol*. 2019;15(5):288-298. doi:10.1038/s41574-019-0176-8
3. Swinburn BA, Sacks G, Hall KD, et al. The global obesity pandemic: shaped by global drivers and local environments. *Lancet*. 2011;378(9793):804-814. doi:10.1016/S0140-6736(11)60813-1
4. Hruby A, Hu FB. The Epidemiology of Obesity: A Big Picture. *Pharmacoeconomics*. 2015;33(7):673-689. doi:10.1007/s40273-014-0243-x
5. Tripathi B (editor) *Charaka Samhita of Agnivesha*, Sutrasthana, Chapter 21, verse 9-10 Varanasi: Chaukhambha Surbharati Prakashan; 2015.
6. *Ashtanga Hridaya of Vagbhata*, Sutrasthana chapter 14 verse no 25–27,Delhi,Chaukhambha Sanskrit Pratishthan; 2015.
7. Sharma PV. *Dravyaguna Vijnana*. Vol II. Varanasi: Chaukhambha Bharati Academy; 2014.
8. Singh RH. Panchakarma therapy in Ayurveda: current research and clinical evidence. *Anc Sci Life*. 2011;30(3):91-9. doi: 10.4103/0257-7941.94705.
9. Tripathi B(editor)*Charaka Samhita*. Vol I–II. Varanasi: Chaukhambha Surbharati Prakashan; 2015.
10. Agnivesha. *Charaka Samhita* with *Ayurveda Dipika* commentary of Chakrapanidatta, Sutrasthana chapter 21 verse no 4. Varanasi: Chaukhambha Sanskrit Sansthan; 2014.
11. Srihari Sharma KN, Choudhary NR, Subramanya P. Evidence Base of Yoga Studies on Cardiovascular Health: A Bibliometric Analysis. *Int J Yoga*. 2019;12(2):162-171. doi:10.4103/ijoy.IJOY_6_18
12. Morton GJ, Meek TH, Schwartz MW. Neurobiology of food intake in health and disease. *Nat Rev Neurosci*. 2014;15(6):367-378. doi:10.1038/nrn3745
13. Berthoud HR, Morrison C. The brain, appetite, and obesity. *Annu Rev Psychol*. 2008;59:55-92. doi:10.1146/annurev.psych.59.103006.093551
14. Horn CC. The medical implications of gastrointestinal vagal afferent pathways in nausea and vomiting. *Curr Pharm Des*. 2014;20(16):2703-2712. doi:10.2174/13816128113199990568
15. Sam AH, Troke RC, Tan TM, Bewick GA. The role of the gut/brain axis in modulating food intake. Neuropharmacology. 2012;63(1):46–56. doi:10.1016/j.neuropharm.2011.10.008