

Case Report

Ayurvedic Management of *Karshya* (Undernutrition) - A Case Report.

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ABSTRACT:

Introduction: *Apatarpanajanya Vyadhi* (disorder arising from inadequate nourishment) with *Krushatva* (undernutrition) is termed as *Karshya*, comparable to underweight. Underweight prevalence though decreased to 32.1% (National Family Health Survey - 5), still remains. Despite several national nutritional programmes, undernutrition remains a significant health challenge in children. *Ashwagandhadi Leha* is indicated in *Karshya* for its *Balya* (strength promoting), *Brimhana* (nourishing) and *Rasayana* (rejuvenating) properties. Limitation with administration of *Ghrita* and *Leha yogas* in children is due to non-acceptance resulting from bitter taste, smell or texture. In such conditions, a modified pharmaceutically granules formulation *Ashwagandhadi leha granules* (ALG) could be a choice of intervention. **Materials and methods:** A single case of *Karshya* was treated and documented for changes in clinical manifestation of *Karshya*, improvement in anthropometric parameters height, weight, mid upper arm circumference (MUAC), head circumference, chest circumference, skin fold thickness, Body mass index (BMI) and WHO Z Score for height-for-weight at baseline, on 90th day and at follow-up. Haematological parameters, serum protein, serum albumin, serum lipids, urine routine and microscopic were assessed at baseline and on 90th day. **Results:** Upon completion of intervention, improvements in weight (1.5kg), height (6cm), BMI (1.1 kg/m²), MUAC (2.5cm) and other anthropometric parameters were noted. However, there was no significant change in haematological and serological parameters. The results can be attributed to the *Brimhana* effect intervention supporting overall nutritional improvement. **Conclusion:** ALG is a safe, palatable and nutritionally rich *Ayurvedic* formulation with *Balya*, *Brimhana* and *Rasayana* properties that improves nutritional status and anthropometric parameters in undernutrition. However, this being a single case study, further evaluation of ALG in large sample and if possible controlled studies can generate substantial evidence and may serve as an effective dietary therapeutic intervention. During the course of treatment there were no adverse drug reactions (ADR) indicating the intervention was safe and effective.

KEYWORDS: *Apatarpanajanya Vyadhi*, *Ashwagandhadi leha granules*, Case report, *Karshya*, Undernutrition.

RECEIVED ON:
31-07-2026

REVISED ON:
12-08-2026

ACCEPTED ON:
18-08-2026

Access This Article Online:

Quick Response Code:



Website Link:

<https://jahm.co.in>

DOI Link:

<https://doi.org/10.70066/jahm.v14i7.2993>

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CITE THIS ARTICLE AS

Reena K, Nahar Pritesh Premchand. Ayurvedic Management of *Karshya* (Undernutrition) - A Case Report. Journal of Ayurveda and Holistic Medicine (JAHM) 2026; 14(7):167-177.



1. INTRODUCTION

Karshya is an *Apatarpanajanya vyadhi* in which *Krushata* (wasting) is a cardinal manifestation and is compared to undernutrition. [1, 2] Undernutrition results from less intake, reduced absorption or excess nutrients loss. Although, malnutrition represents both undernutrition and overnutrition, sometimes it is referred to Protein Energy Malnutrition which is interchangeable with undernutrition. [3]

The National Family Health Survey (NFHS-5), estimates that noticeable improvement is in nutritional indicators as compared to NFHS-4 (2015-16). Thus, stunting and wasting has decreased to 35.5% and 19.3% respectively and overall prevalence of underweight decreased to 32.1%. [4] While, underweight and stunting indicators in Karnataka are 33% and 35% respectively. [5]

In spite of various steps in implementation of biggest program on nutrition, improving economic status, India is hub for 1/3rd of malnourished children in the world and accounts for over all 5.6 million child's deaths from malnutrition. [6]

Undernourished kids falter to regular growth and development, weak immunity against infectious diseases, recovery from illness, physical activities and also learning intensity. Poor feeding alone is an important contributor for undernourishment that can impact up on more than 50% of nearly 11 million annual deaths in children under 5 years age. [6] *Karshya*, whether results from poor intake or poor absorption or even from excessive loss from the body may lead to depletion of tissues especially, *Mamsa* and *Medas* resulting in undernutrition. *Karshya* is managed with the principles of *Brimhana*, *Santarpana*, *Deepana* and *Balya Chikitsa* along with proper dietary and lifestyle modifications. [7, 8, 9] The present case study highlights the impact of poor consumption and reduced *Agni* on undernutrition. Further, it demonstrates importance of *Agni Chikitsa* and potential of *Ayurveda* intervention in improving the nutritional status, *Agni* and both physical and mental activities in a child with undernutrition.

2. TIMELINE OF EVENTS

De-identified patient information: A 2 year 6 months old male child visited the OPD of Kaumarabhritya at SDM Institute of Ayurveda and Hospital, Bengaluru by his parents with complaints of poor weight gain and poor appetite since past 6 months. According to the mother, the child has shown minimal interest in regular home-cooked meals and often refuses traditional foods offered at home. The child likes to eat bakery products and snack items; however, the overall quantity consumed remains minimal. The parents expressed concerns regarding his consistent low body weight and poor dietary intake when compared to peer group.

Primary concerns and symptoms: Thus, by history, the primary concern identified was poor weight gain consequent upon reduced appetite and poor eating.

Medical, family, and psycho-social history including relevant genetic information: The child was from middle socio-economic status family who was apparently normal during the neonatal period following a late pre-term institutional delivery by lower segment caesarean section (LSCS), with no history of neonatal complications. Birth weight was 2.2 kg reported to be small for gestational age. Early motor milestones were attained appropriately; however, the child showed poor weight gain and growth faltering from infancy. As per the parents the overall quantity of intake of the child was minimal and he continued to be thin and undernourished when compared to children of his age group. By the time he turned two, it was clear that he wasn't growing as expected. His weight and height were below average for his age, his muscles seemed underdeveloped and he would get tired very quickly while playing. His parents also noticed that he fell sick often, had low resistance to infections and took longer than usual to recover from common illnesses. His eating pattern was irregular, with no fixed meal timings. He ate very little of calorie-rich or nourishing foods and mostly preferred dry, light items. The parents consulted a local healthcare centre, where nutritional supplements were recommended by physician. However, they were not administered consistently

and there was no marked improvement seen in child. At that stage, no detailed nutritional evaluation or proper treatment plan was carried out. Due to persistent poor growth and parental concern regarding overall development, the child was brought for *Ayurvedic* consultation. There was no significant history of acute infection or chronic debilitating illness, recurrent diarrhoea, congenital anomalies that contributed to weight loss and required prolonged hospitalization. Family history was not suggestive of any genetic disorders, endocrine illness or chronic malnutrition. Antenatal and postnatal history was non-contributory. Child was immunized appropriate for age.

Prenatal, natal and post-natal history

Pre-natal history: The mother conceived at the age of 35 years. The antenatal period was uneventful. Regular antenatal check-ups were undertaken throughout pregnancy. Iron, folic acid and calcium supplements were consumed as advised given by physician. There was no history of physical or mental stress during pregnancy. No significant illness was reported during any trimester. There was no history of gestational diabetes mellitus, pregnancy-induced hypertension, eclampsia or other obstetric complications. Overall, the antenatal period was normal.

Natal history: The child was delivered at late pre-term by LSCS. The birth weight was 2.2 kg. The infant cried immediately after birth and did not require resuscitation. The neonatal period was uneventful, with no birth asphyxia, meconium aspiration or neonatal complications. The immediate post-natal period was uneventful and the newborn was healthy.

Post-natal history: The post-natal period was normal. The child was exclusively breast feeding up to 2 years of age. Complementary feeding was initiated when the child was 6 months old with home-based foods, though the quantity and nutritional adequacy were suboptimal. Immunization was done appropriately for age. At the time of presentation, the child was on a mixed diet predominantly consisting of cooked rice, pulses, Idli, dosa, milk (traditional Indian cuisine) chocolates and nuts providing 780 kcal/day approximately

which was inadequate for this age child. The diet was mainly soft and mashed in consistency. The child refuses hard, rough, crunchy and liquid food items. Feeding was frequent, but the quantity consumed per meal was inadequate. Bowel habits were regular and passage of stools daily but it was hard. Micturition was normal. No history of food allergy or intolerance has been elicited.

Clinical Findings:

General Examination: The child was a conscious, alert and cooperative. The child was a poorly built and poorly nourished, with weight below expected for age. There was visible reduction in subcutaneous fat and muscle mass, giving a lean body habitus. The skin was appearing dry and rough and the hair was sparse and dry. The face shows mildly sunken cheeks. No pedal oedema or lymphadenopathy noticed. Vital parameters were within normal limits for age.

Ashtasthana Pareeksha

- *Nadi – Vata Pittaja*
- *Mutra – Prakrita*
- *Mala – Prakrita*
- *Jihwa – Aliptha*
- *Shabdha – Spashta*
- *Sparsha – Anushnasheeta*
- *Dhrik – Sunken eyes, Drishti was Prakrut*
- *Akruti – Krusha, Dhamani jala santata,*

Dashavidha Pareeksha

- *Prakruti – Vata kaphaja*
- *Vikruti – Vata Pitta pradhana*
- *Sara – Avara*
- *Samhanana – Madhyama*
- *Pramana - Avara*
- *Satmya – Avara*
- *Satva – Avara*
- *Ahara Shakti – Avara*
- *Vyayama Shakti – Avara*
- *Vaya – Balya*

Samprapti Ghataka

- *Dosha – Vata*

- *Dushya – Rasa, Mamsa, Meda*
- *Agni – Manda and Vishama*
- *Ama – Jatharagnimandya and Dhatvagnijanya Ama*
- *Srotas – Rasavaha, Mamsavaha, Medovaha*
- *Dushti Prakara – Sanga*
- *Udbhava Sthana – Amashaya, Pakvashaya*
- *Sanchara Sthana – Sarva Shareera*
- *Adhithana – Sarva Shareera*
- *Vyakta Sthana – Madhya Shareera and Hasta pada*
- *Vyadhi Prakara – Chirakari*
- *Sadhyasadyata – Sukha Sandhya - Navin Avastha*
- *Kashta Sadhya - Deergha Kalanubandhi*
- *Roga Marga – Bahya*

Systemic examination: Respiratory system shows bilaterally equal air entry and no added sounds. Cardiovascular system was unremarkable with normal heart sounds, regular rate, rhythm and without murmurs. Abdomen was soft, non-

tender, with no organomegaly and bowel sounds were audible and normal. Central nervous system examination indicate that child was conscious and oriented. Other systemic examinations were within normal limits.

Srotopareeksha: *Annavaha srotas* shows features of *Alpahara grahana* and *Kshutmandhya* suggesting diminished digestive capacity. *Rasavaha srotas* is affected, evidenced by *Alpa poshana*, *Krushata* and reduced *Bala*. *Raktavaha srotas* appears functionally normal with no clinical features of *Pandutva*. *Mamsavaha* and *Medovaha srotas* shows *Kshaya lakshanas* in the form of reduced muscle bulk and depleted subcutaneous fat. *Asthivaha srotas* is within normal limits for age. *Majjavaha srotas* shows no apparent abnormality. *Mutravaha* and *Purishavaha srotas* are functioning normally with regular micturition and bowel habits. *Pranavaha srotas* is normal with no respiratory distress or altered breathing pattern.

Patient Timeline:

Prenatal and Birth History: Late-preterm delivery by LSCS; birth weight – 2.2 kg; Small for Gestational Age (SGA)
Infancy (0–2 years): Growth faltering, poor weight gain and decreased dietary intake
Prior Healthcare Consultation: Nutritional supplementation was advised but was not administered regularly; no significant improvement in weight gain.
2 years 6 months: Presented to the OPD of the Department of Kaumarabhritya, SDM Hospital, with complaints of poor weight gain and decreased appetite for 6 months
08/03/2025 – Day 0: Baseline Assessment: Clinical, anthropometric and laboratory assessment performed. Weight – 9.5 kg; Height – 82 cm.
Day 1 – 3 (09/03/2025–11/03/2025): Mebendazole and <i>Chitrakadi Vati</i> administered. Improvement in appetite and digestive status was observed.
Day 4 – 94 (12/03/2025–10/06/2025): <i>Ashwagandhadi leha</i> granules administered. Progressive improvement in nutritional status, appetite and digestive status was observed. Weight – 11 kg; Height – 85 cm
10/06/2025: End of Treatment: Post-treatment clinical, anthropometric and laboratory assessment performed. Treatment adherence and tolerance were assessed through caregiver enquiry, treatment records and electronic communication. No ADR were reported.
10/07/2025: 1-Month Follow-up: Clinical and anthropometric assessment demonstrated sustained improvement. Weight – 11.5 kg; Height – 88 cm, with maintained improvement in appetite and digestive status. No ADR were reported.

Figure: 1 Patient Timeline

Investigations and assessment: Anthropometric parameters height, weight, MUAC, head circumference, chest circumference, skin fold thickness, BMI and WHO Z Score for height-for-weight at baseline, on 90th day and at follow up. Haematological parameters, serum protein, serum albumin,

serum lipids, urine routine and microscopic were assessed at baseline and on 90th day.

Diagnosis: *Karshya*

Diagnostic reasoning: The diagnosis of *Karshya* was done based on the clinical features of emaciation, poor appetite, weakness, reduced muscle bulk, loss of subcutaneous fat

and anthropometric assessment. Laboratory investigations were normal and other causes of undernutrition and failure to thrive were ruled out. Based on the clinical findings and *Ayurvedic* assessment, the condition was diagnosed as

Karshya. In the event, attempt was also done to carefully rule out *Balashosha* and *Pargarbhika* as a differential diagnosis ([Table 1](#)).

Table 1: Differential Diagnosis

Differential diagnosis	Inclusion criteria	Exclusion criteria	Final diagnosis
<i>Parigarbhika</i>	<i>Karshya</i>	Absence of maternal pregnancy during continued breastfeeding with subsequent emaciation of first-born child secondary to early weaning off. Absence of <i>Kasa</i> , <i>Agnisada</i> , <i>Vamathu</i> , <i>Tandra</i> .	Excluded
<i>Balashosha</i>	<i>Karshya</i>	Absence of <i>Shleshma dushta stanyapana</i> , Excess day sleep, excess cold-water intake leading to prominent digestive impairment with progressive wasting	Excluded
<i>Karshya</i>	Clinical features of <i>Karshya</i> with evidence of undernutrition; reduced weight for suitable age group. Undernourishment even though child eats food.	None	Included – <i>Karshya</i>

Prognostic characteristics: The child had mild undernutrition (WHO weight-for-height Z-score -1) with no other illnesses. Early treatment and the absence of complications indicated a good prognosis with nutritional rehabilitation and *Ayurvedic* management.

Diagnostic challenges: No significant diagnostic challenges were encountered. Clinical examination, anthropometric

assessment and laboratory evaluation were done without any financial, cultural or communication barriers.

Intervention: *Karshya* in this condition was considered to be as a result of depletion consequent upon poor intake, poor digestion and poor absorption. Thus, therapeutic approach was planned to clear *Krimi*, correct *Agni* and restore the depleted *Dhatu* ([Table 2](#) and [3](#)).

Table 2: Details of Intervention

Sl. No.	Drug / Intervention	Dose	Anupana Route	Time Administration	of Duration	Purpose
1	Tab. Mebex 100 [Cipla Ltd. – Mumbai] Batch No: B0864MLLTK (11012902) Mfg. Date – 02/2025; Exp. Date – 01/2028	100 mg BID	Oral	After food	3 days	<i>Krimighna</i>
2	<i>Chitrakadi Vati</i> [SDM Ayurveda Pharmacy, Kuthpady, Udupi] Batch No.: CKT021 Mfg. Date – 02/2025; Exp. Date – 01/2028	1 tablet TID	Oral	½ hour before food	3 days	<i>Deepana</i> and <i>Pachana</i> .
3	<i>Ashwagandhadi leha</i> granules [Pilot trail done – at SDM Teaching Pharmacy, Bengaluru.] Batch No: 023/25 Mfg. Date – 02/2025; Exp. Date – 08/2025	15g BD	With 100 ml milk	After food	3 months	<i>Brimhana</i> , <i>Balya</i> and <i>Rasayana</i> .

Table 3: Treatment timeline

Timeline	Date	Drug / Intervention	Dose & Administration	Duration
Day 0 (Baseline)	08/03/2025	Baseline clinical assessment	Clinical, anthropometric and laboratory evaluation	Before treatment
Days 1 – 3	09/03/2025 – 11/03/2025	Tab. Mebex 100	100 mg BID, orally, after food	3 days
Days 1 – 3	09/03/2025 – 11/03/2025	<i>Chitrakadi Vaṭi</i>	1 tablet TID, orally, 30 minutes before food	3 days
Day 4 – 94	12/03/2025 – 10/06/2025	<i>Ashwagandhadi leha</i> granules	15 g BD with 100 ml milk, after food	3 months
End of Treatment	10/06/2025	Post-treatment assessment	Clinical, anthropometric and laboratory evaluation	Final evaluation

Changes in intervention: No modification in the treatment protocol, dosage, formulation or duration was required during the treatment period. The planned therapeutic protocol ([Table 2](#)) was completed as scheduled.

Follow-up and outcomes: The child received *Deepana*, *Pachana* and *Krimighna* treatment for 3 days followed by ALG along with 100 ml of milk after food for a period of 3 months.

Adherence: Treatment adherence was assessed at each follow-up through caregiver enquiry, review of treatment records and electronic communication between visits.

Tolerance: Tolerance was assessed by collecting empty bottles and enquiring about acceptance of the intervention.

Adverse effects: The occurrence of any gastrointestinal or other complaints after administration were followed up through electronic communication in order to monitor adverse events. However, there were no documented ADR with this child and parents reported child was compliant with intervention and accepted the nutritional supplement well.

3. RESULTS

Following the 90-day intervention, improvements seen on anthropometric parameters, graded clinical feature, haematological, serological and urine analysis are summarized below ([Table 4](#), [5](#) and [6](#)).

Table 4: Efficacy of therapeutic interventions on anthropometric parameters at different points of time (Anthropometry)

Parameters		1 st Day	90 th Day	Follow up
Weight		9.5kg	11kg	11.5kg
Height		82 cm	85 cm	88 cm
MUAC		13.5cm	16 cm	16.5 cm
Head Circumference		47cm	48 cm	48 cm
Chest Circumference		47.5cm	50 cm	50 cm
Skin Fold Thickness	Biceps	6.22 mm	6.50 mm	6.66 mm
	Abdomen	6.92 mm	7.01 mm	7.01 mm
BMI		14.1 kg/m ²	15.2 kg/m ²	14.9 kg/m ²
WHO Z Score on Height for Weight				
Z score	Mild Malnutrition < - 1 to > - 2			
	Moderate Malnutrition < - 2 to > - 3	-1	-1	-1
	Severe Malnutrition < - 3			

Table 5: Efficacy of therapeutic interventions on clinical features of *Karshya*

Parameters		1 st Day	90 th Day	Follow up
<i>Dourbalya</i>	Dull – Grade 3			
	Moderately active – Grade 2			
	Active – Grade 1	1	0	1
	Very active – Grade 0			
<i>Kshut Mandya</i>	Child does not take food considerably even by force – Grade 3			
	Child does ask but take food considerably by request – Grade 2			
	Child himself asks food but not take adequately – Grade 1			
	Child himself asks food and takes adequately – Grade 0	1	0	0
<i>Dhamani Jala Darshana</i>	Prominent – Grade 3			
	Visible – Grade 2			
	Visible and prominent on pressure – Grade 1	1	1	1
	Not visible easily even after pressure – Grade 0			
<i>Sthula Parva</i>	Relatively look larger – Grade 3			
	Prominent – Grade 2			
	Covered – Grade 1	2	1	1
	Deeply seated with extra fat – Grade 0			
<i>Nidra</i>	Crood – Grade 3			
	Disturbed – Grade 2			
	Short but sound – Grade 1	0	0	0
	Long and sound – Grade 0			
Appearance	Ill looking – Grade 3			
	Old looking / Depressed – Grade 2			
	No cheerful / Tense looking – Grade 1	0	0	0
	Healthy – cheerful – Grade 0			
<i>Mala Pravritti</i>	Irregular for more than 2 days – Grade 3			
	On alternate day – Grade 2			
	Daily but hard stool – Grade 1	1	0	0
	No constipation – Grade 0			
<i>Kapola Gata Vasa</i>	Cheeks inside with zygomatic bones prominent – Grade 3			
	Cheeks inside – Grade 2			
	On surface level – Grade 1	2	1	1
	Cheeks everted – Grade 0			
<i>Shrama</i>				
A) <i>Sharirika</i>	Tired without playing – Grade 3			
	Tired with some physical activity or playing for some time – Grade 2			
	Excessive playing tired – Grade 1	2	1	1
	Excessive playing not tired – Grade 0			
B) <i>Manasika</i>	Tired without studying – Grade 3			
	Tired with some time studying – Grade 2			
	Excessive study tired – Grade 1	2	1	1
	Excessive study not tired – Grade 0			

Table 6: Efficacy of therapeutic interventions on haematological, serological and urine analysis

Complete Blood Count (CBC)		
Test	Result Values	
	BT	AT
Haemoglobin	12.6 gms%	13.3 gms%
Erythrocyte	05 mm/hr	02 mm/hr
Sedimentation Rate		
Total Count	9440 cells/cmm	9070 cells/cmm
Neutrophils	26.9 %	26.2 %
Lymphocytes	63.1 %	63.2 %
Eosinophils	4.6 %	4.7 %
Monocytes	5.3 %	5.6 %
Basophils	0.1 %	0.3 %
Red Blood Cells	4.45 million/cmm	4.85 million/cmm
Platelet Count	4.13 lakhs/cmm	3.56 lakhs/cmm
Serum Lipid		
Test	Result Values	
	BT	AT
Total Cholesterol	136 mg%	101 mg%
Triglyceride	57.3 mg%	52.5 mg%
HDL	27.2 mg%	56.1 mg%
LDL	97.3 mg%	41.2 mg%
VLDL	11.46 mg%	10.50 mg%
Serum Protein		
Test Name	Result Values	
	BT	AT
Total Protein	6.27 gms/dl	5.76 gms/dl
Albumin	4.34 gms/dl	4.35 gms/dl
Globulin	1.92 gms/dl	1.41 gms/dl
A:G Ratio	2.24:1	3.09:1
BUN	6.82 mg/dl	1.78 mg/dl
Urine Routine		
Test	Result	
	BT	AT
Albumin	Nil	Nil
Sugar	Nil	Nil
Bile Salts	Absent	Absent
Bile Pigments	Absent	Absent
Ketone Bodies	Absent	Absent
Urine Microscopic		
Test Name	Result Values	

	BT	AT
Pus Cells	0-1 /HPF	0-1 /HPF
Epithelial Cells	1-2 /HPF	1-2 /HPF
RBC	Nil	Nil
Bacilli	Not seen	Not seen
Casts	Not seen	Not seen
Crystals	Not seen	Not seen
Phosphates	Not seen	Not seen
Others	Nil	Nil

4. DISCUSSION

Karshya, an *Apatarpanajanya Vyadhi* in which *Agnimandya* impairs the formation of *Ahara Rasa*, leading to *Rasa Dhatu Kshaya* and through *Uttarottara Dhatukshaya*, depletion of *Mamsa* and *Meda Dhatu*. [1,2,7,8] In the present case, *Vata* predominance causing *Dhatu Shoshana* was managed sequentially by first treating *Krimi* and *Ama*, followed by *Agni Deepana*, *Pachana* to prepare the *Koshta* for proper absorption. This was followed by rejuvenative and restorative treatment to enhance nutritional status.

Krimighna therapy with Mebendazole for the first three days addressed a frequently overlooked contributor to paediatric undernutrition, occult intestinal parasitism, which competes for absorbed nutrients and perpetuates *Agnimandya* independent of dietary intake. [10] This was followed by administration of *Chitrakadi Vati*, whose *Deepana* and *Pachana* actions, driven principally by *Chitraka* (*Plumbago zeylanica* Linn.), helped correct *Vishama Agni* and clear residual *Ama* from the *Annavaha* and *Rasavaha Srotas*, thereby preparing the digestive system before nourishing therapy was introduced. [11] This staged sequence of *Krimighna*, *Deepana*, *Pachana* and *Brimhana* reflects the classical therapeutic approach described for the management of *Karshya*. [7,8] The details of therapeutic intervention ([Table 2](#)) and timeline of therapeutic events are described ([Table 3](#)).

Ashwagandhadi leha granules formed the core *Brimhana*, *Balya* and *Rasayana* intervention. ([Table 3](#)) [8] *Ashwagandha* (*Withania somnifera* Linn.) acts as the principal restorative

drug, promoting *Dhatu* formation, *Mamsa Dhatu Vriddhi* and overall *Brimhana* through its *Balya* and *Rasayana* properties. Its major phytoconstituents, including withanolides (Withaferin A and Withanolide A), sitoindosides, somniferine and flavonoids, possess adaptogenic, anabolic, antioxidant and immunomodulatory activities that enhance protein synthesis, reduce oxidative stress, support muscle growth and promote tissue regeneration. *Tila* (*Sesamum indicum* Linn.) and *Masha* (*Vigna mungo* Linn.), owing to their *Guru*, *Snigdha* and *Madhura* properties, contributed direct tissue-building and nourishing effects. *Tila* is rich in sesamin, sesamolin, lignans, tocopherols, essential fatty acids, proteins, calcium, iron, magnesium and zinc, whereas *Masha* provides high-quality proteins, essential amino acids, flavonoids, polyphenols, dietary fibre, iron, calcium, potassium and B-complex vitamins, supporting lean body mass, bone growth and *Dhatu Poshana*. [12-14] Furthermore, piperine present in *Pippali* (*Piper longum* Linn.) enhances digestive enzyme activity and improves the bioavailability of nutrients and phytoconstituents, [15] whereas *Ghrita* facilitates the absorption of fat-soluble vitamins and bioactive compounds. [16] A preliminary nutritional analysis of *Ashwagandhadi leha granules* demonstrated that the formulation provides 376.31 kcal of energy, 82.56g carbohydrates, 4.88g protein, 2.95g fat and 3.45g minerals per 100g, indicating its nutrient-dense composition. Collectively, these *Ayurvedic* properties, phytochemical constituents and nutritional attributes synergistically enhance nutrient assimilation, tissue nourishment, healthy weight gain and overall growth, thereby contributing to the effective management of undernutrition. Additionally, *Ashwagandhadi leha* in granules form is well accepted by the children due to its palatability and texture. During the initial month of intervention, the child showed early clinical improvement, particularly in *Kshut Mandya*, *Dourbalya*, *Mala Pravritti* and general well-being. Improvement in appetite indicates correction of *Agnimandya*, resulting in better digestion and assimilation of

Ahara Rasa, which subsequently initiates proper *Dhatu Poshana*. Although anthropometric changes during the first month were modest, this phase was crucial for metabolic correction and preparing the body for tissue replenishment. Similar observations have been described in *Ayurvedic* literature and previous study, where restoration of *Agni* precedes visible improvement in body tissues. [1,2,7,8,17] By the completion of 90 days, marked improvements were observed in both objective and subjective parameters. Weight increased from 9.5 kg to 11 kg, height from 82 cm to 85 cm, MUAC from 13.5 cm to 16 cm and BMI from 14.1 to 15.2 kg/m², indicating effective *Brimhana* and restoration of nutritional status. The child also showed improvement in *Kshut Mandya*, *Dourbalya*, constipation, *Sthula Parva* and *Kapola Gata Vasa*, reflecting replenishment of *Mamsa* and *Meda Dhatu*. The WHO weight-for-height Z-score remained at -1 SD despite significant anthropometric improvement, possibly due to short duration of study. Laboratory investigations demonstrated maintenance of normal haematological and urine parameters with improvement in haemoglobin and HDL cholesterol, suggesting enhanced nutritional balance without adverse effects. Continued improvement during follow-up, including further increases in weight (11.5 kg) and height (88 cm), suggests sustained therapeutic benefit consistent with the *Rasayana* concept of continued tissue nourishment and enhancement of *Bala* (Table 4, 5 and 6). The observed findings are consistent with the *Ayurvedic* principle that sustained *Brimhana Chikitsa* promotes gradual restoration of depleted *Dhatus* and supports healthy growth and development in children with *Karshya*. [1, 2, 7, 8] Throughout the course of treatment no ADR were reported.

The improvement observed in anthropometric, subjective and biochemical parameters suggests that the staged *Krimighna*, *Deepana*, *Pachana* and *Brimhana* protocol effectively addresses the *Samprapti* of *Karshya* rather than merely promoting weight gain. The granulated *Ashwagandhadi leha granules* further enhanced palatability and treatment compliance, supporting its suitability for

paediatric use. However, being a single case report, the results can be used as probable evidence for further controlled studies on a larger sample with long term follow up to generate evidence-based data on efficacy of *Ashwagandhadi leha* granules in the management of undernutrition.

5. CONCLUSION

Karshya in children, correlated with undernutrition, arises from *Agnimandya* and progressive *Rasa, Mamsa, Meda Dhatukshaya* as described in *Samhitas*. In this case, the condition was chronic, with a history of growth faltering and poor weight gain since infancy and worsening of underweight and decreased appetite for 6 months prior to seek *Ayurveda* intervention. In this case, a structured protocol combining *Krimighna, Deepana, Pachana* and *Brimhana* therapy along with appropriate dietary and supportive measures for 90 days was explored on a single case of undernutrition. The key improvements noted were consistent with increased Weight, Height, MUAC and other anthropometric parameters along with normalisation of appetite, bowel habits, *Sharirika* and *Manasika Shrama* without any ADR. However, *Shodhana* or *Yoga* intervention was not administered during the treatment course. The total treatment duration was approximately 3 months (94 days), followed by a 1-month follow-up period, during which the improvement was sustained. The changes in lipid profile, particularly the rise in HDL further supports restoration of a healthy metabolic and nutritional state rather than mere weight gain. This change in HDL was an incidental laboratory finding and its clinical significance cannot be established from a single case. By pharmaceutically modifying the traditional *Leha* into a palatable granule form, the limitations of taste, texture and acceptability that commonly restrict *Ghrita* and *Leha* administration in children were successfully overcome, improving compliance.

These findings suggest that *Ashwagandhadi leha* granules may represent a safe, palatable and nutritionally rich *Ayurvedic* formulation with *Balya, Brimhana* and *Rasayana* properties.

Key message: This case is a structured multimodal *Ayurvedic* approach combining *Krimighna, Deepana, Pachana* and *Brimhana* therapy, along with appropriate dietary support, may be a feasible and well tolerated approach for managing *Karshya* associated undernutrition in children. However, the limitation is being a single case report the findings may not be appropriate for generalization.

Abbreviations:

Ashwagandhadi leha granules - ALG

NFHS – National Family Health Survey

IAP – Indian Academy of Paediatrics

BMI – Body Mass Index

MUAC – Mid Upper Arm Circumference

WHO – World Health Organization

ADR – Adverse drug reaction

PEM – Protein Energy Malnutrition

BT – Before Treatment

AT – After Treatment

Declaration of Patient Consent: The authors certify that proper informed consent has been taken from the patient's caregiver for publication of the case report, including relevant clinical information and accompanying images. The caregiver has been informed that the patient's name and initials would not be revealed and all reasonable efforts would be made to maintain confidentiality and protect identity. However, absolute anonymity cannot be guaranteed.

Patient perspective: Parents stated that, our child was lean and underweight compared to other children of the same age. He had poor appetite, low immunity and would get tired easily while playing. We were worried about his low weight and general weakness. After undergoing *Ayurvedic* treatment, we have noticed a significant improvement in his appetite, weight, immunity and overall activity levels. He appears healthier, more energetic and active than before.

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Acknowledgements - The authors gratefully acknowledge the constant support and guidance of Dr. Jagdeesh Kunjal, Principal, SDM Institute of Ayurveda and Hospital, Bengaluru and the valuable constructive suggestions

with encouragement provided by fellow researchers and faculty members of the Department of Kaumarbhritya.

Declaration of Generative AI

The authors declare this manuscript was written without the use of generative artificial intelligence tools. All the content, including text generation, data analysis and references was developed and reviewed by the author without assistance from AI technologies.

Conflict of Interest – The authors declare no conflicts of interest.

Source of Support – The authors declare no source of support.

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REFERENCES:

1. Yadav AK, Singhal HK and Vyas PP. A Critical Appraisal of Malnutrition in Ayurveda. J Fam Med. 2021;8(8):1276. DOI: <https://doi.org/10.26420/jfammed.2021.1276> (accessed on 6th June 2026).
2. Tikole RV, Kulkarni R, Shailaja U, Nithin SA, Mallannavar V, Nayankumar S, Tikole YV. Nutritional deficiency disorders in paediatrics: An Ayurvedic perspective. Int J Res Ayurveda Pharm. 2013;4(4):605–607. DOI: <http://dx.doi.org/10.7897/2277-4343.04431> (accessed on 6th June 2026).
3. Paul VK, Bagga A. Ghai Essential Pediatrics. 8th ed. New Delhi: CBS Publishers & Distributors Pvt. Ltd; 2013; 95.
4. Ministry of Women and Child Development. Measures to Address Malnutrition. PIB Delhi; 2022 Aug 5. DOI: <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1848643®=48&lang=2> (accessed on 6th June 2026).
5. Chittapur D, Patil SS, Lakshmanappa S. Nutritional status assessment of 6–59 months age children in rural Yadgir, Karnataka state, India. International Journal of Community Medicine and Public Health. 2024;11(4):1585. DOI: <https://doi.org/10.18203/2394-6040.ijcmph20240895> (accessed on 6th June 2026).
6. Gragnolati M, Shekar M, Das Gupta M, Bredenkamp C, Lee YK. India's undernourished children: A call for reform and action. World Bank; 2005:7. DOI: <https://doi.org/10.1596/13644> (accessed on 6th June 2026).
7. Acharya YT, editor. Charaka Samhita of Agnivesha with Ayurveda Dipika Commentary of Chakrapanidatta. Reprint ed. Varanasi: Chaukhambha Surbharati Prakashan; 2020. Sutrasthana, Chapter 22 (Langhanabrimhaniya Adhyaya), verse no. 4–17; 249–261.
8. Acharya YT, editor. Charaka Samhita of Agnivesha with Ayurveda Dipika Commentary of Chakrapanidatta. Reprint ed. Varanasi: Chaukhambha Surbharati Prakashan; 2020. Sutrasthana, Chapter 21 (Ashtauninditiya Adhyaya), verse no. 11–17; 116–121.
9. Kulkarni R. An integrated approach on child nutrition. J Ayurveda Holist Med. 2013;1(2):8-14. DOI: <https://doi.org/10.70066/jahm.v1i2.423> (accessed on 6th June 2026).
10. Tripathi KD. Essentials of Medical Pharmacology. 8th ed. New Delhi: Jaypee Brothers Medical Publishers; 2019. Anthelmintic drugs (Mebendazole); 815–818.
11. Sharma PV. Dravyaguna Vijnana. Vol. 2. Reprint ed. Varanasi: Chaukhambha Bharati Academy; 2020. Chitraka (*Plumbago zeylanica* Linn.); 331–334.
12. Sharma PV. Dravyaguna Vijnana. Vol. 2. Reprint ed. Varanasi: Chaukhambha Bharati Academy; 2020. Ashwagandha (*Withania somnifera* Linn.); 763–765.
13. Sharma PV. Dravyaguna Vijnana. Vol. 2. Reprint ed. Varanasi: Chaukhambha Bharati Academy; 2020. Tila (*Sesamum indicum* Linn.); 672–674.
14. Sharma PV. Dravyaguna Vijnana. Vol. 2. Reprint ed. Varanasi: Chaukhambha Bharati Academy; 2020. Masha (*Vigna mungo* Linn.); 430–432.
15. Sharma PV. Dravyaguna Vijnana. Vol. 2. Reprint ed. Varanasi: Chaukhambha Bharati Academy; 2020. Pippali (*Piper longum* Linn.); 117–121.
16. Vagbhata. Ashtanga Hridayam. Sutrasthana, Chapter 5 (Dravadravya Vijnaniya Adhyaya), Varanasi: Chaukhamba Sanskrit Sansthan; 2012. verse 18–21; 88–90.
17. Binisha C, Kori VK. Management of Kumarashosha (undernutrition) in a child with ayurvedic treatment protocol - case report. Int J Drug Deliv Technol. 2026;16(8s):676-680. DOI: [10.25258/ijddt.16.8s.74](https://doi.org/10.25258/ijddt.16.8s.74) (accessed on 6th June 2026).