

**Study the Effect of Yashtyadyam Ghrita in the Management Of Balashosha
W.S.R. To Undernutrition**

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Introduction

Equilibrium of *Doshas* and freedom from all the disease is health for this purpose thesages studied the sacred *Ayurveda*.

Ayurveda gives importance to *Kaumarbhritya* because this age determines how the person will become later on in his life. *Balashosha* is result of improper nutrition. *Balshosha* which can be correlated with undernutrition (P.E.M.) is one of such disease occurring in children due to hampered nutrition or *Dhatuposhana*. Thus, *Balashosha* can be defined as a condition in which child is emaciated acharya *Vagbhata* has mentioned three main causative factors for *Balashosha* viz excessive sleep in hr excessive intake of cold water and excessive intake of *kapha* vitiated breast milk¹.

Undernutrition contributes to 60% of the 10million death globally that occurs every year among children under five years of age. The prevalence of underweight children in India is among the highest in the world. Undernutrition includes both protein-energy malnutrition and micronutrient deficiencies²

YashtyadyamGhrita mentioned in *Ashtanghridya* by *Vagbhata* is best in *Balshosha*. Hence an attempt was made to study the effect of *YashtyadyamGhrita* in the management of *Balshosha*³ (undernutrition). In a present study the anabolic effect of *Ayurvedic* drug i.e. *YashtyadyamGhrita* was studied in the under nutrients children and the results were found very encouraging and promising.

Aim And Objectives

AIM: -

- To study the effect of *YashtyadyamGhrita* in the management of *Balashosha* s.r. to undernutrition.

Objectives: -

- To study the *Balashosha* and undernutrition (according to *Ayurveda* & Modern text.)
- To study the effect of *YashtyadyamGhrita* in undernutrition.
- Efforts to avoid severe consequences of malnutrition in children.
- To establish beneficial effect of ancient mode of treatment in modern era.

Review Of Ayurvedic Literature

Utpatti:-

The term *Balshosha* is used by *AshtangHridya* and *AshtangSangraha*¹. In other *Ayurvedic* text it might have been described in another way.

Acharya Charaka in *AshtounidatakiyaAdhaya* has condemned eight types of condition in human being, which is extreme at its own. One of them is *Karshya* i.e. extreme emaciation⁴.

In *ShoshapratischedhtyaAdhyaya*, *Sushruta* has defined *Shosha* as- *Shrivelingof Rasa, Rakta*, etc. *Dhatu* is called as "*Shosha*"⁵.

In *KashyapaSamhita* description of *VyadhijanyaFakka* has similarities with *Balshosha*⁶.

In *Madhav Nidan* the babies fed with breast milk which is vitiated by *VataDosha* shows symptoms similar to *Balshosha* i.e. *Krushangata*, *Kshamswar*, constipation⁷, etc.

Saindhantik Vivachan Of Balshosha:

Causes of Balshosha⁸

- Excessive sleep
- Excessive intake of water
- Intake of breast milk vitiated by *KaphaDosha*.

Purvaroop:

- Anorexia
- Pratishyaya
- Fever
- Cough

Roop:

- Excessive emaciation.
- Wasting of muscles of thighs, buttocks and arms.

Excessively emaciated person is unable to tolerate excessive physical exercise, hunger, thirst, cold and hot climate⁹.

- Such people are often subjected to chronic diseases, cough, wasting and dyspnoea

Samprapati flow Chart¹⁰:

Excessive Sleeping during day time, excessive consumption of cold water and breast milk vitiated by *Kapha*



Kapha along with *Vatadoshdushty*



Agnimandya



Rasavahastrotasobstruction



Subsequent *Dhatu*s nourishment unable



Poor nutrition of tissue



Emaciation of the child

Treatment:

Balshosha is disease related with *dhatu* and its nourishment. Hence the treatment should be aimed at agitation of *Jatharagni* i.e. *DeepanPachan* along with proper nourishment i.e. *Brimhana*.

Modern Review Of Literature

Undernutrition:

It is a condition in which there is an inadequate consumption and poor absorption or excessive loss of nutrients¹¹.

Malnutrition:

It is a condition that develops when the body does not get the proper amount of protein, energy, vitamins and other nutrients which are needed for maintaining healthy tissues and function of organs¹¹.

Protein Energy Malnutrition:

It is manifested primarily by inadequate dietary intake of protein and energy either because of the dietary intake of these two nutrients are less than required for normal growth¹²

Kwashiorkor:

Weight loss and oedema are accepted as the main criteria to identify Kwashiorkor. Growth retardation, skin changes (lesions), abnormal hair, swollen belly, lack of growth, lack of stamina, loss of muscle tissue, vomiting, diarrhoea, hepatomegaly and children have a well-nourished appearance with some retention of body fat and even though some tissue wastage and weight loss are present, it may be overshadowed by the oedema¹³.

Marasmus:

Growth retardation and muscle wasting without oedema. Underweight. The child is malnourished but does not have any features of marasmus or Kwashiorkor¹³.

Diagnostic criteria for Malnutrition

Classification according to the Indian Academy of Paediatrics (IAP):

Grade Of Malnutrition	Weight For Age
NORMAL	>80%
Grade I	71-80%
Grade II	61-70%
Grade III	51-60%
Grade IV	<50%

Age Independent Indices to diagnose undernutrition:

1. Mid Upper Arm Circumference (M.U.A.C.)
2. Skin Fold Thickness

Clinical Sign Of Malnutrition¹⁴:

SITE	SIGNS
Face	Moon face (kwashiorkor), simian facies (marasmus)
Eye	Dry eyes, pale conjunctiva, periorbital oedema
Mouth	Angular stomatitis, glossitis, spongy bleeding gums (vitamin C), parotid enlargement
Teeth	Enamel mottling, delayed eruption
Hair	Dull, sparse, brittle hair, hypopigmentation, broomstick eyelashes, alopecia
Skin	Loose and wrinkled (marasmus), shiny and oedematous (kwashiorkor), dry, follicular hyperkeratosis, patchy hyper and hypopigmentation (crazy paving or flaky paint dermatoses), erosions, poor wound healing
Nails	Koilonychia, thin and soft nail plates, fissures or ridges
Musculature	Muscle wasting, particularly buttocks and thighs; Chvostek or

	Trousseau signs (hypocalcaemia)
Skeletal	Deformities, usually as a result of calcium, vitamin D, or vitamin C deficiencies
Abdomen	Distended: hepatomegaly with fatty liver; ascites may be Present
Cardiovascular	Bradycardia, hypotension, reduced cardiac output, small vessel vasculopathy
Neurologic	Global developmental delay, loss of knee and ankle reflexes, impaired memory
Hematologic	Pallor, petechiae, bleeding diathesis
Behaviour	Lethargic, apathetic, irritable on handling

Management Of Malnutrition¹⁵:

Management of Mild - Moderate Malnutrition:

The patients are best managed in their own homes. The parents of such children are educated about the inadequacy in child's intake and guided how to correct it.

Management of severe acute malnutrition:

1. Stabilization phase: Focus restoring homeostasis and treating medical complications and usually takes 2 to 7 days of inpatient treatment.
2. Rehabilitation phase: focus on rebuilding wasted tissues and may take several weeks.

Materials & Methods

60 diagnosed patients of *Balshosha* (undernutrition) attending OPD of *Kaumarbhritya* department of *Ayurved Rugnalaya* were selected randomly and divided equally into two groups.

Drugs: -

Group A: Trial Group - *Yashtyadyam Ghrita*

Group B: Control Group – *Goghrita*.

Preparation of Yashtyadyam ghrita:

Yashtyadyam Ghrita containing *Yashtimadhu*, *Pippali*, *Lodhra*, *Padmaka*, *Utpal*, *Chandan*, *Talishpatra*, *Sariva* and *Goghrita* is prepared by the procedure given in *Sharangdhara Samhita Sneha Kalpana Adhyaya*¹⁶.

Plan Of Study:

Selection of patients:

Open randomized controlled trial design was studied. Patients with the clinical features of *Balshosha* coming under grade I & II were selected after screening with inclusion and exclusion criteria.

- Group A – Trial group.
- Group B – Control group

Study period: 8 weeks (60 days)

Follow ups: Assessment on 0 – 15th – 30th – 45th and 60th days.

Criteria For Selection Of Patient:

Inclusion Criteria: -

1. Children age between 1 - 5 yr.
2. Children from grade Ist and IInd undernutrition according to IAP classification.
3. Children of either sex, irrespective of religion socioeconomic status and food habit.

Exclusion Criteria:-

1. Severely malnourished children (gradeIIIrd andIVth malnutrition of IAP).
2. Children suffering from infectious and chronic systemic disorder.
3. Children with chromosomal, genetic, metabolic or congenital disorder. Other systemic illness like T.B & HIV etc.

Subjective Criteria:-

- *Daurbalya*.
- *KshudhaAlpata*.

Objective Criteria:-

- Weight for age.
- Mid arm circumference.

Drug Regimen

	Group - A (Trail Drug)	Group-B (Control Drug)
Drug Name	<i>YashtyadyamGhrita.</i>	<i>Goghrita</i>
Time	Twice in a day. before a meal.	Twice in a day. before a meal.
Number of patient.	30	30
Anupan	<i>KoshnaJal.</i>	<i>KoshnaJal.</i>
Dose	2 - 10 Gm.	2 - 10 Gm.
Rout of administration.	orally	Orally

Observations

Wilcoxon sign rank test and Paired t test for subjective and objective criteria respectively are used.

Result

Comparatively the effect of *YASHTYADAMGHRITA* (Group A) is significant than *GOGHRITA* (Group B) for *Daurbalya*, *Kshudhaalpata*, Weight, and Mid Arm Circumference of *BALASHOSHA*.

Discussion

Balshosh which can be correlated to undernutrition (PEM) of modern science is one of such disease i.e. occurring in children due to hampered nutrition or *Dhatuposhana*. Regarding to *Samprapti* of *Balshosha*, there are two main entities i.e. *Vata-Kapha*, *Prakopa* and *Strotorodha*, which ultimately leads to improper nutrition and emaciation of *Dhatu*. The goal of treatment is to provide adequate calories for dual purpose to replace the losses and build up nutrition to promote growth. *Yashtyadyamghrita* mentioned in *Ashanghridya* by *Vagbhata* is the best in *Balshosha*.

Conclusion

Most of the patients of *Balshosha* are between the ages of 1-5 years and male and female are equally affected by *Balshosha*. Statistical analysis showed that there is significant improvement in weight, height, mid upper arm circumference, *Daurbalya* and *Kshudhaalpata* in both groups. But trial group shows overall better results as compared to control group.

It concluded that comparison between trial and control groups, showed insignificant results on most of the parameters. This may be due to around same, mean score found in both groups. It means that the result of control group was as good as the results of trial group. Trial Group shows better results individually.

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