

A REVIEW ON COMPARATIVE EVALUATION OF ORAL AYURVEDIC FORMULATION AND *BASTI* PROCEDURE IN *KARSHYA* W.S.R. TO MALNUTRITION

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ABSTRACT

India is home to 40 percent of the world's malnourished children and 35 percent of the developing world's low-birth-weight infants live in India; every year 2.5 million children die in India, accounting to one in five deaths in the world. More than half of these deaths could be prevented if children were well nourished. India has a very slow progress in the reduction of of-of child malnutrition. The prevalence of child malnutrition in India deviates further from the expected level at the country's per capita income than in any other developing country. In the field of pediatrics, there are so many diseases which have no or limited answers in the contemporary medical science. Growth and development is a physiological process provided all factors influencing them are healthy. Failure to thrive or small age is resulting when these factors are deficient, and in Ayurveda, it is addressed as *Karshya*. Ayurveda, *Brimhana*, and *Rasayana* therapies have been advocated as a line of treatment in *Karshya*. The present review work has been done to find out the more beneficial approach to oral medication alone and along with procedures, especially *Basti*. For this purpose, three research works conducted in the department of *Kaumarabhritya* are reviewed for the assessment of comparative efficacy. **Aims and Objectives:** The study was designed with the objectives: To study the role of *Basti* procedure in *Karshya*. To reviews, the clinical research works on *Basti* procedure in *Karshya* (malnutrition) in IPGT & RA, Jamnagar and reach a final conclusion.

KEYWORDS: *Kaumarabhritya*, *Karshya*, pediatrics, *Basti*.

Introduction

Malnutrition is a term which has two subsets one is undernutrition and another on is overnutrition. People are malnourished if their diet does not provide adequate calories and protein for growth and maintenance or they are incapable of food utilization due to an illness. A child can suffer from malnutrition by the intake of inadequate diet and repeated infections. The basic need for a human is food, house, and health care and the growth of cellular system and tissues is completely dependent on quality and quantity of food. It indicates that malnutrition is an outcome of excessive hunger and inadequate food supply to a child which creates a risk factor for disease and can increase the risk of morbidity and mortality. Good nutrition creates an environment for children to survive, grow, develop, learn, play, participate and contribute their full potential for country although malnutrition robs their future and leaves a young life hanging in the balance. Stunting is the reason behind the devastating of the result of malnutrition in-utero and early childhood. By the suffering from Stunting a child can never attain his full possible height and their intellectual may never develop to their full cognitive potential. Globally, approximately 151 million children under 5 suffer from stunting. A disease or poor nutrient intake can cause Wasting in children which are the life-threatening situation. Weak immunity and susceptibility towards long-term developmental delay are the possible outcomes from wasting even child can face an increased risk of death, when wasting is severe. The possible

treatment of these children is treatment and better observational care. In 2017, nearly 51 million children under 5 were wasted and 16 million were severely wasted. The learning difficulties in school, less earning as an adult and barriers to participation in their communities are also the possible effects of this situational defect. In diagnostic purpose, 'failure to thrive' (FTT) is a term used to describe infants and young children whose weight is persistently below the 3rd percentile for age on an appropriate standardized growth chart or less than 60-80% of ideal weight for age. ⁽¹⁾ In the terms of Ayurveda sciences, the term undernutrition has very much resemblance to *Karshya* which means lean and thin. *Karshya* is derived from the root word '*KrushTanukarne*' which means emaciation of the body by the disease or condition. According to *Acharya Charaka*, the prime factor in the pathophysiology of *Karshya* is food intake in less quantity or inappropriate quantity. *TwagasthiShesho*, (a remnant of skin and bone), *Atikrusha* (over lean) and *SthoolParva* (thick nodes).⁽²⁾ are the main symptoms. According to *Sushruta*, lean and fattiness of body depends upon *Rasa-Dhatu* even a human being is made by his *Rasa Dhatu*, she should be cautious about his *Rasa Dhatu*.⁽³⁾ *Basti* in Ayurveda is a unique procedure which express its function according to *Veerya* (potency) and *Prabhava* (astonishing effect), these are beyond our thoughts and measurements. By definition itself, it is clear that assumption of the mode of action of *Basti* is more complicated. Among three *Doshas*, *Vata* is prime *Dosha* which has the capacity to move from one place to another. This *Vata* is responsible for moving *Pitta* and *Kapha* from one place to other. As per the Ayurveda science, *Basti* is considered as the best treatment for *Vita* and it actively works on *ShakhagataVata*, *MarmagataVata*, *KoshthagataVata* as well as *Urdhwagata*, *Adhogata*, *Sarva-Avayayagata*. So *Basti* is considered as *Chikitsardha*.⁽⁴⁻⁶⁾ Role of *ShariraVridhikarBhava* in growth & development- According to *Acharya Charaka*, there are four factors which are responsible for the growth & development of the body and they are as under 1. *Kalayoga* (Favourable disposition of time) 2. *Svabhava* (Nature) 3. *Aharasaushthava* (Excellence of the properties of food) 4. *Avighata* (Absence of inhibiting factors). Among the four *ShariraVridhikarbhavas*, *Aharasaushthava* plays an important role than the others. Because it is more responsible for the growth & development of the body. *Acharya Charaka* has mentioned *Aharasaushthava* (*AharaSampat*) as a *Balavridhikarbhava* in *ShariraSthana*. According to *Acharya Charaka*, one should regularly take such foods which are responsible for the maintenance of good health and prevention of the diseases. He has also mentioned that food is the only responsible factor which promotes the growth and development of the body. ⁽⁷⁻⁸⁾ Proper growth of the body and prevention of the diseases are the contributions of the wholesome diet. The wholesome diet is *SantripatKarak*, *balaKarak* as well as *Dehadharak* and *Poshak*. *Ayu*, *Varna*, *Smriti*, *Oja*, and *Agni* are increased by taking the wholesome diet. ⁽⁹⁻¹⁰⁾ A proper quantity of food increases *Jathragni*, just like the small amount of fuel increases fire. According to *Kashyap*, food is the excellent drug which keeps the body healthy. *Acharya Bhel* has considered a *Mahaushdha*. ⁽¹¹⁻¹²⁾ *Acharya Kashyap* also has offered some esteemed position to the *Ahara*. *Ahara* confers immediate strength to the body. Food having only one *Ras* leads to weakness in the body and provokes the *doshas* while the food having all the six *Rasas* attributes growth, strength, and development of the body. Hence regular intake of food containing all the *Shadaras* gives good support to the body. ⁽¹³⁾

Materials and Methods

The clinical observations and results of research studies, which were carried out in a pediatric age group in the Department of *Kaumarbhritya* at I.P.G.T. & R.A., Jamnagar.

Table No.1 Various Examinations By Different Md Scholar.

Year	Name	Marked Improvement				Moderate Improvement				Less Improvement				Unchanged			
		Gr I	Gr II	Gr II I	Total	Gr I	Gr II	Gr II I	Total	Gr I	Gr II	Gr II I	Total	Gr I	Gr II	Gr II I	Total
1991	Vyas P. P.	41.66	16.66	50	36.10	25	33.33	25	27.77	33.33	50	25	36.11	00	00	00	00
1998	NiveditaKinalekar	<0.001	78.57	-	-	21.43	-	-	00	-	-	00	-	-	00	-	
1999	V K Kori	40	70	52	46.67	20	36	13.33	10	12	00	00	00				
2008	GeetaJatav	00	13.33	6.67	13.33	73.33	43.33	86.67	13.33	50	00	00	00				
2011	NiraliDoshi	13.16	18.42	15.79	26.32	18.42	22.37	57.89	42.11	50	2.63	21.05	11.84				

MALNUTRITION

Causes

Aharaja

Rukshaannapana ,Vatikaannapana ,Kashaya, Katu,Tikta Rasa Sevana,Alpashana, Pramitashana, Anashana, Langhana,UpavasaEarly cessation of breast feeding,

Viharaja

Sharirika-Kriyatiyoga, Ativyayam, Malamutradinigraha, Rukshasnana, Rukshaudvaratan, Atiadhayana, Vatasevana, Atapasevana, Kaphaativartana, Shonitaativartana, Malaativartana, Dukhasayya, Dukhaasana, Balavatanigraha, Atibhargamana

Mansika-Atibhaya, Atishoka, Atichinta, Atikrodha, Atibha

Others

Vatikaprakriti, Bhutabhighata, Grishmaritu, Nityarogi

PIE CHART OF MALNUTRITION AND DISEASES

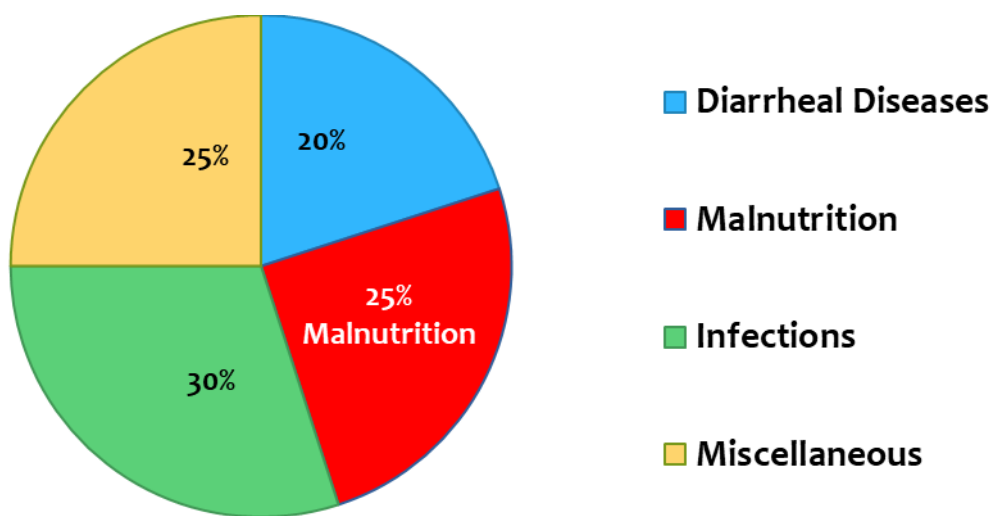


Fig No.1 Prevalence of malnutrition in Rural Area

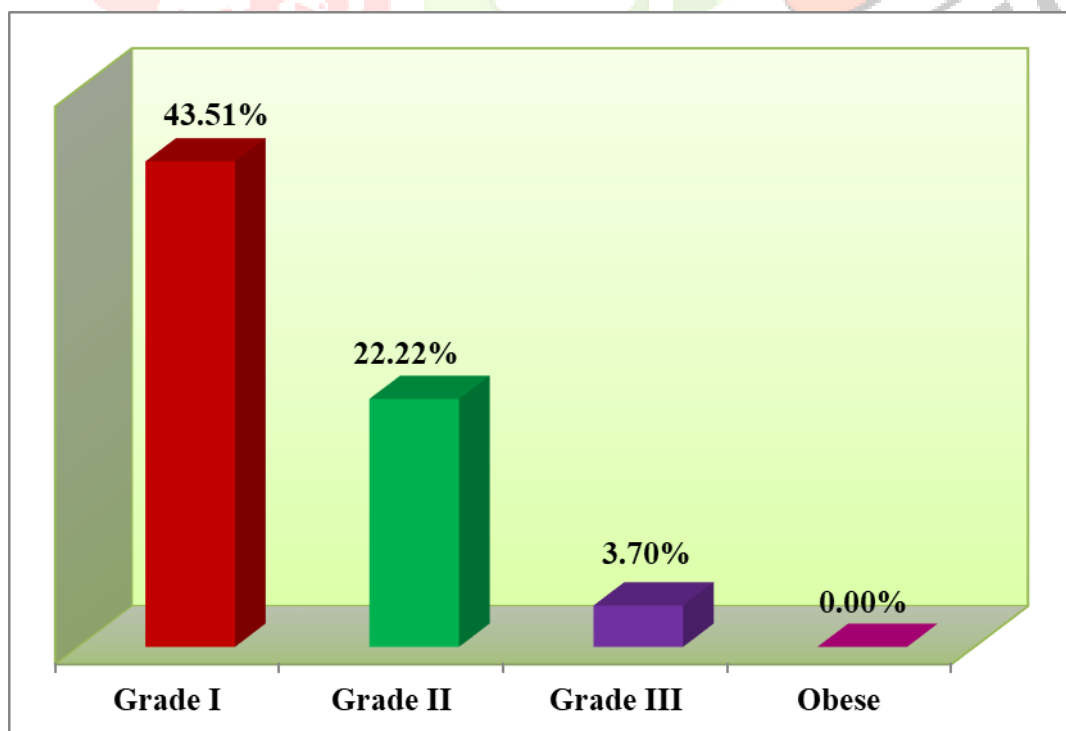
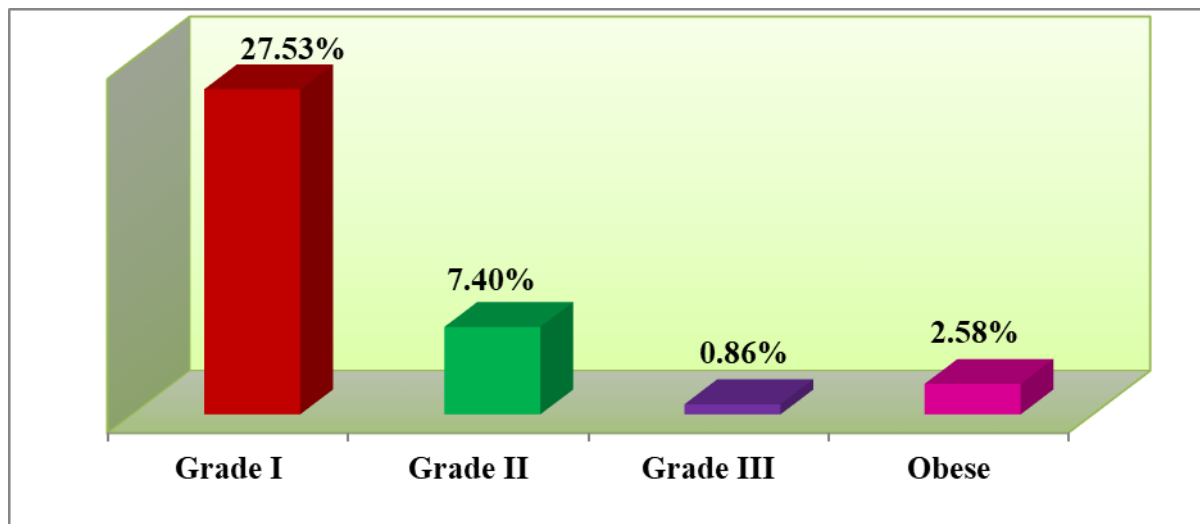


Fig.No.2 Prevalence of malnutrition in Urban Area



Discussion & Results

A study carried out with *Yapana Basti* and *Shiva Modaka* had also shown the good result individually and combine effect in grade III and grade IV malnourished children. The study was also carried out in infants with *Matrustanya Basti* and *AshwagandhaKshir Basti* in children, in infants through the sample size was small it had shown the highly significant result. In next two studies, *Basti* had shown the better result than oral formulations as *Basti* have the *Vatahara* property and with *Madura, Snigdha, Shita Dravyas* it leads to *Brimhana*. The outcome of the research represents that *Basti* procedure shows a better result then internal medicine in *karshya* with the same drug due to *YogvahiGuna* of *Tailam* and *VataharaGuna* in *Basti*. The controlled gain over *Vata* leads to the *Vighatana* of *SampraptiGhataka* of disease *Karshya*. *Basti* showed a better anabolic effect by the increase musculature and deposition of fat. In all four studies, there was a significant result in subjective parameters like *Dhamanijaldarshana*, Appetite, Appearance, *Daurbalya*, *Krodha*, *Shoka*, *Harsha*, *Bhaya*.

Conclusion

So the results are showing that the Ayurvedic medicine whether the classical formulation or the formulation based on the concept of *Dipana, Rasayana, Balya, Strotoshodhak* properties etc. are effective in the management of *Karshya* in all age group and grade III and grade IV malnutrition also. *Basti* procedure shows a better result than internal medicine in *karshya* with the same drug due to *Yogvahi Guna* of *Tailam* and *Vatahara Guna* in *Basti*.

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