

Ayurvedic Review Article on Balshosha with w.s.r to Kwashiorkor

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ABSTRACT

When a toddler's body does not get enough protein, food, minerals, and other nutrients to be in top shape, it's called malnutrition. It is believed that food is the principal agent of change as it may affect physical conditions beginning at conception and continuing through the subsequent level. Locating appropriate vitamins is a formidable challenge for humans. Nutritional abnormalities may lead to a condition called malnutrition. "Malnutrition" may mean either too much or not enough food. When it comes to food, the Ayurvedic texts are full with useful yet dispersed advice. Balshosha, the sickness caused by the vitiation of Rasavaha Srotas, is one of them. The name Balshosha means "child emaciation" when you put the sounds of "Bala" and "Shosha" together. The Ayurvedic texts state that this undernourishment is caused by a lack of protein and energy, which is what modern science calls protein energy malnutrition. Poor growth, decreased cognitive advancement, lowered immunity to diseases, etc., are all symptoms of this physiological state or process. Both curative and preventative practices are fundamental to Ayurveda. In this newsletter, the Ayurvedic and present-day correlation of Balshosha is given.

Keywords: Balshosha, Kwashiorkor, Ayurved, Kaumarbhritya

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Submitted: 20-Jul-2025 | Revised: 05-Aug-2025 | Accepted: 27-Aug-2025 | Published: 01-Sep-2025

INTRODUCTION

Humans prioritise food and nourishment above anything else. Nutrient deficiency disease is one of the odd nutrition-related risks associated with either an excess of or a deficit in nutrients, Improper vitamin and nutrient intake. The illness Acharya Vagbhatta has defined balashosha alone in his works Astangasangraha and Astangahridaya. While Charak and Sushruta spoke about the era as "Shosha" and "Krusha," Sharangadhara called it "Gatrashosha" and "Dourbalya," Yogaratnakara called it "Karshyaroga," and so on. ^[1,2] The Balashosha is comparable in cause, indication, and manifestation to Shuskarevati, Parigarbhika, Ksheeralasaka, and Phakka roga as well. Balashosha restricts the simplest to the age group of infants. There are a number of ways in which general dhaatukshaya may lead to developmental delays in children.

Bala Shosha's pathophysiology is quite similar to protein-energy malnutrition (PEM). According to the World Health Organisation (WHO), PEM is a group of symptoms that manifest as a variety of diseases caused by a concurrent deficiency in different amounts of protein and caloric. It is most common in newborns and young children and is often linked to infections. In the early stages of polycystic ovary syndrome (PEM), there is a gradual loss of weight due

to a lack of subcutaneous fats and muscle mass, which causes many important organs to malfunction. As the disease progresses, medical capabilities are limited, and infections, shock, and death can occur as a result of impaired homeostatic mechanisms and immune defences.

Extreme protein-energy undernutrition may manifest in two main ways, the first of which is kwashiorkor. Some essential vitamins and protein are missing from the diets of people with kwashiorkor. The hallmark of kwashiorkor, in contrast to other forms of malnutrition, is severe protein deficiency, which manifests as fluid retention inside the tissues (edema). Despite the edema in the hands, feet, face, and stomach, a person with kwashiorkor may also seem underweight in their limbs. People suffering from severe malnutrition may be misled by the bloated belly characteristic of kwashiorkor.

Nidan / Causes of Balshosha^[3]

1. Atiswapna (excessive day sleeping)
2. Ati-shitambu sevena (excessive intake of cold water/fluid)
3. Shlaishmik stanya sevana (kapha vitiated breast milk)

Kumarshosha gets manifested in two clinical patterns

1. Ksheerada (breastfed babies) and Ksheerannada (breast & solid food)

2. Annada (child on solid food)

The hetu described in the Ashtanga Hridaya can be examined, and Charak Acharya's explanation of shosha applies for the latter.

Clinical features of Balshosha

- 1) Arochaka (child develops loss of appetite and desire towards food)
- 2) Pratishayava- Jwara- Kasa (due to depletion of body immunity and children become prone to recurrent infection)
- 3) Kumara shushvati (Emaciation due to loss of fat & fails to weight gain)
- 4) Snigdha-Shukla-mukha aadee (due to inadequate proteins oedema develops over face and orbital cavity giving glistening look and also pallor due to accompanying anaemia).^[4]

Symptoms of Kwashiorkor

- 1) Age - It is usually affecting children aged 1-4 year.
- 2) General features
 - a) "Pitting Oedema" refers to fluid-related swelling, most often seen in the lower extremities. ranges from hardly noticeable to downright disgusting, and it might account for anywhere from 2% to 20% of your total body mass.
 - b) Fat sugar baby appearance. Moon face is present.

- c) The youngster is unable to stand or walk and has constant muscle atrophy. Muscle mass loss with preservation of subcutaneous fat.

3) Changes in skin -

- a) Increased pigmentation, desquamation, and dyspigmentation may merge to form a skin lesion that resembles flaky paint or patches on an individual's enamel.
- b) Dermatitis — dry, peeling skin, scaly patches or red patches.
- c) Herpes simplex, stomatitis, cheilosis, smooth tongue, and petechiae may all be seen in Kwashiorkor.

4) Changes in Hair - Dry, brittle hair, hair loss and loss of pigment in hair.

5) Psycho-motor alterations - Apathy, fatigue & Irritable. Anorexia (Loss of appetite)

6) Failure in Growth - Stunted growth in children. Underweight despite edema.

7) Gastrointestinal features -

- a) Ascites, or fluid accumulation in the abdominal cavity, causes an enlarged stomach.
- b) Enlarged liver, a symptom of fatty liver disease.

8) CVS - Hypotension, Tachycardia, Anemia, Electrolyte imbalance.

Samprapti (pathophysiology)

Amotpatti (Aam production) results from an unnatural elevation of kapha caused by the aforementioned causes, which in turn cause Agnimandya and avarodha of the Rasavaha Stotasa. This prevents dhaatuposhan, which leads to shosha in the body. Reduced generation of metabolic end products causes

tissues to suffer and leads to reduced dhatu formation as a consequence of blockage in the Rasavahastrotasa, which in turn hinders the body's digestion and metabolism as a whole. Inadequate Rasa Dhatu and improper absorption. This causes increased catabolism and decreased anabolism. This ultimately leads to Balshosha.

Pathophysiology

Peripheral oedema in a starving individual is an indicator of kwashiorkor. The lack of fluid equilibrium between the hydrostatic and oncotic pressures at the capillary blood vessel partitions is the cause of edoema. The concentration of albumin helps to create oncotic pressure, which the body uses to keep fluids in the vasculature. Children suffering from kwashiorkor have developed intravascular depletion due to very low albumin levels. Edoema develops when the body's reaction to hypovolemia is a rise in antidiuretic hormone (ADH). Sodium retention is also caused by the strong response of plasma renin. All of those things add to the swelling. Low glutathione (antioxidant) levels also help to identify kwashiorkor. These are thought to represent elevated levels of oxidative stress in the undernourished child. elevated oxidant phases are often seen during fasting and may also be detected in situations of chronic inflammation. Advanced nutritional popularity and antioxidants including

sulphur would be one way to reverse this trend. Further study is needed to understand the process, although there is an experimental notion suggesting that alterations in the microbiome/viron contribute to edematous malnutrition.

Management of Balshosha

In Balshosha, the primary etiopathogenesis is Agnimandya. All of these factors work together to cause an imbalance in the body's Kapha dosha, which in turn causes the development of Agnimandya and Ama, which in turn prevents the Rasavahastrotasa, a state in which the body's natural structure is disrupted. So, the Balshosha remedy can be broken down into two parts: the first is to rectify the Agni using Agnideepana Chikitsa, and the second is Bruhan Chikitsa. Agnideepana chikitsa corrects the disturbed physiology through aushadha, which contains Ushna-Tikshana Guna Veerya, which normalizes the disturbed bodily structure, followed by Bruhan and Balya chikitsa via medicated ghrita such as Madhuyashtadhi ghrita, Mahapaishachika ghrita, and others. A few Pushtikara yogas may be planned.

The primary goal of treatment is to eliminate and maintain the cause while restoring the imbalanced Doshas and Dushyas to their original state.

The following technique ought to be adopted for treating Balshosha,

1. Strotodushti: The practice of Shodhan Karma may delay the onset of Rasa Vaha Srotas. It is not possible to do a full-fledged Panchakarma treatment right now since the youngsters are vulnerable. On the other hand, medicinal milk is given for purging reasons during Shodhan.^[5]

2. Agnideepana: In order to improve the Dhatus's slowed metabolism once the Srotas obstruction is removed, Agni is tried to be activated. To achieve the Agni status continually, medications that are Deepana and Pachana in nature are used, which elevate Jatharagni, thereby increasing Dhatwagni. Children that are malnourished experience atrophied salivary glands, fatty infiltration of the liver, and atrophied pancreatic acini. The intestinal mucosa villus is highly reduced. For instance, food is fried with Hingu and Jeeraka. For instance, food is fried with Hingu and Jeeraka.

3. Bruhana Chikitsa: The infant can effectively digest and metabolize the food now that Deepana and Pachana medicines have balanced the child's Agni. As a result, nutritional therapy involves bolstering and promoting the Dhatus using nutrient tonics or restorative drugs. Ayurvedic remedies like Suvarna Yoga, Ashwagandhadi Ghrita, Sishushosha Nasaka Ghrita^[6], Vacha &

Kustha, Suvarna Bhasma & Goghrita, Madhu, Matayashi & Shankhpusphi, Suvarna Bhasma & Goghrita, Madhu, Vacha & Arkapusphi, or Suvarna Bhasma with Goghrita are available, among others. Some of the notable Bruhana Dravya mentioned in Ayurvedic texts are Madhu, Sweta Durva, and Kavphala; Priaval Modaka; Bajara Modaka; Tiladi Yoga; Shatavari Churna; Vidarikandadi Yoga; and many more.

4. Abhyanga- A therapeutic massage using therapeutic oils. such as Lakshadi Tail and Soshanashaka Tail, which are beneficial.

5. Food regimen: We want our weight reduction programme to be well-rounded, delicious, and simple to digest. The amount of solid food a youngster eats should be gradually increased as their digestive abilities develop. A baby has to be artificially fed if their mother's milk isn't good enough. (pages 6–9) When dealing with malnourished children, the knowledge of Ashta-Aahara-Vidhi-Visheshtayana is crucial, as is the knowledge of Ahara Vidhi Visheshytana's rashi, Upyogasamstha, and Upyokta. Fast food and junk food consumption, which may lead to Agnimandya and malnutrition, are major reasons why these rules are not being followed anymore. It is recommended that the Rashi, or serving size, be the primary determinant of a toddler's food plan, since it indicates how well-digested the meals are. Both meals have a huge effect. The what,

how, and when of food consumption are governed by dietary standards called Upyogsamstha, which might vary from one baby's Satmya to the next. Upyokta, or meal consumers, are essential for getting the fitness advantages of meal intake. The Ahara Vidhi Visheshtayana increases nutrition availability by maintaining clear channels.^[10]

Treatment/Management according to modern science.

In order to alleviate protein deficiency caused by hunger, several pathophysiological processes must be satisfied. Some have maintained that hypoalbuminemia is not the current culprit behind Kwashiorkor edoema. Researchers at the time reasoned that this was because nutritional therapy alleviated the swelling, long before albumin awareness increased with albumin administration. Nevertheless, further analysis of this study has shown significant inaccuracies in this finding, and it is true that severe hypoalbuminemia was linked to the worsening of concurrent edoema in the hypovolemic newborn.

In order to treat patients hospitalised for Kwashiorkor, the following are the ten most common concepts. Beginning with the child's arrival and continuing through emergency stabilisation and rehabilitation, these requirements are implemented in distinct phases.

1. Treating/stopping hypocalcemia
2. Treating/stopping hypothermia
3. Treating/stopping dehydration.
4. Correcting electrolyte imbalance
5. Treating/stopping infection
6. Correcting micronutrient deficiencies
7. Beginning cautious feeding
8. Attaining catch-up growth
9. Providing sensory stimulation and emotional help and
10. Preparing for follow-up after recuperation.

The importance of correcting the fluid imbalance in Kwashiorkor cannot be overstated. Aggressive rehydration, which may cause abrupt heart failure, has been discussed in the past. But this issue turned out to be a bit of a stretch. Also, hypovolemic shock and death should result from severe hypovolemia. Therefore, the scientific community had to proceed with caution. Too much salt and not enough potassium make up the conventional normal saline solution.

CONCLUSION

Dietary disorders in children, such as Balsosha, are caused by eating too much or too little food, according to Acharya Kashyapa, who is also known as the Trayopstambha, and the importance of Ahara, the Mahabhaishajya, in everyday life. First, after thinking about how Balsosha

became this way, you have to dissect its aetiology, or Samprapti, and fix Agni, or Agnideepana Chikitsa. The next step is to start working out with Brihana Chikitsa on a healthy and balanced diet. Another crucial component in preventing malnutrition in children is Ashta-Ahar-Vidhi-Vishesha-Ayatan. The material given provides the association between Balshosha and Kwashiorkor in particular.

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Cite this article as (NLM):