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ISSN 2321 - 6328

Review Article

EFFICACY OF TAKRA (BUTTER MILK) IN GRAHANI ROGA: A CONCEPTUAL APPROACH

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Article Received on: 11/07/14 Accepted on: 10/08/14

DOI: 10.7897/2321-6328.02461

ABSTRACT

Our eating habits, physical activities, rest and sleep pattern are the principal factors that influence health and overall wellbeing. An irregular eating pattern implies the intake of meals at different intervals of time, avoiding important meals and/or frequently indulging in fat rich fast food or junk meals are very much affecting the human health. Though he knows the ill effects of such mechanical life, and made himself victim to it by suffering with many disorders, among these "Grahani Roga" is a global problem and more common in modernized human being. This grahani is the main functional part of the Maha Srotas and also known as Pittadhara kala. The disease, although not life threatening, but cause great distress to patients. It is also said that the disease causes frustration in modern physicians. No cure has been found out to the disease, but only symptomatic treatment and assurance is given to the patient by the modern medical science. This highlights the need of an alternative approach. So looking for a better management is needed. As a world is looking forward for Ayurveda for safe treatment modalities, it is essential to find out the effective therapeutic procedure from our science. In this paper an effort will be made to explore the utility of Takra (daily dietary regimen) in Grahani Roga and state its importance.

Keywords: Alternative therapy, Grahani, GIT, Takra

INTRODUCTION

The disease in which grahani or small intestine gets vitiated and there is impairment of agni is called as Grahani.¹ Grahani is the specialized part of the Maha srotas (Gastrointestinal System). According to Acharya Sushruta, the 6th Pittadhara kala situated between Amasaya and Pakwasaya is called Grahani² while Charakacharya mention it as the part being situated above Nabhi, it is the site of Agni and does Grahana of Anna and it is supported and nourished by the strength of Agni.³

Anatomical and Physiological correlation of Grahani

Anatomically Grahani is said to be situated above the umbilicus and between Amashaya and Pakwashaya. It is the site of Agni. Physiologically it holds the ingested food for the duration of its digestion before the kitta or undigested food residue is propelled into the Pakwashaya.⁴ Thus Grahana, Dharana, Pachana, Soshana and Munchana become the main functions of Grahani. Besides its reciprocal relation with Agni, Grahani is also spoken of as Pittadhara kala, Kala by its descriptions here in the context of Grahani would refer to the lining membranes specially of the GIT extending from the pyloric region till the Ileo-cecal junction. It not only serves the purpose of a covering membrane but also,

- As a system of glands which provides the necessary digestive enzymes.

- As the surface on which various digestive reactions take place.
- As the surface from which absorption of the digested food takes place.

At the outset, the Dharana, Grahana, Pachana, Soshana and Munchana functions of the Grahani can be interpreted in the following way with respect to the Small Intestine,

- The Pyloric sphincter retains the food in the stomach for the duration of gastric digestion and production of acidified chyme.
- The Duodenum exercises a regulating control over the secretion of some of the important digestive juices and gastric activity.
- The remaining area provides essential ingredients for the completion of digestion and absorption. In addition, the formation of chyle and its separation from the undigested residue takes place in this area. The chyle is retained here for the duration required for its absorption and the undigested residue is passed on to the Large Intestine. Thus the entire small intestine starting from Pyloric Sphincter to the Ileo-cecal Sphincter represent Grahani as told in our classics.

Clarification of Grahani Roga

Commentator Chakrapani comments that Grahani dosha implies the mal functioning of the Agni, as Agni is located in Grahani and there is no distinction between the Ashraya and the Ashrayee. Therefore Grahani dosha

includes Agnimandhya, Ajirna etc. functional deformities too. But he further clarifies that the four types of the Grahani gada mentioned are produced by the reversal of the functioning of Grahani. Thus the term Grahani as the disease entity is specifically used for the ailment caused by the vitiation of the organ called Grahani.

Etiology and Pathogenesis

The disease Grahani is due to the following of improper and unwholesome dietary practices. Constant intakes of such food especially in persons with hampered digestion or those who have recently recovered from disease like diarrhea or gastroenteritis, these factors further vitiates the power of digestion and cause the disease Grahani.⁵⁻⁷

Manifestation of the disease

Due to indigestion

Thirst, Fever, Vomiting, Anorexia, Belching of bitter or sour taste, excessive salivation, distaste of mouth.⁸

Due to Mal absorption

Edema of hands and feet, emaciation of the body, pain in joints, dysponea, giddiness.⁹

With respect to Defecation

Voids stool in large quantity either in solid or liquid from i.e. pakwa or apakwa avastha many times. There is discomfort in the abdomen during defecation and the stool voided foul smells.¹⁰ In modern concepts, If the disorders of the GI system are analyzed, specifically the Small Intestine, we come across the condition called Mal Absorption Syndrome (MAS) the clinical features which more or less correlate with Grahani dosa. Amongst the different cause that leads to mal absorption, Sprue is one of the conditions that can nearly be compared to Grahani. The main pathology in this condition is total or partial Villous atrophy leading to hampered absorption thus to malnutrition. There may or may not be interference of any micro organism in this condition. Though the nature of the Bowel movement precisely matches with that presenting in IBS (Irritable Bowel Syndrome), the factor of mal absorption differentiates it from Grahani.

Management of Grahani with Takra

There are many different preparations mentioned towards the treatment of this disease in our classics. But one common and most important dravya mentioned in the treatment of Grahani by almost all the authors is Takra i.e. Butter milk. Takra is given equal importance to that of Ambrosia. Yatha suranam amrutham pradhanam tatha naranam bhuvit takramahuhu.¹¹ It is highly appreciated for its therapeutic values. Acharya Vagbhata states that, Buttermilk cleanses the channels of circulation, as a result of which rasa reaches the tissue element appropriately. This produces proper nourishment, strength, complexion and exhilaration. Besides it also cures the one hundred diseases which include 80 caused by Vata and 20 by Kapha¹¹.

Properties and its pharmacological action

- Rasa - Madhura, Amla; Kashaya – Anurasa
- Guna - Laghu, Ruksha
- Veerya - Ushna

- Vipaka - Madhura
- Karma - Agni deepan, Hrudya, Kaphavathahara, Grahi¹³.
- Due to its Madhura Vipaka – it does not aggravate Pitta.
- Due to Kashayanurasa, Ushna veerya and Ruksha Vikashi guna it counteracts aggravated Kapha.
- Due to its Madhura, Amla rasa and Sandratha it brings down the aggravated Vata.

Acharya Charaka has given a detailed description of how Takra needs to be administered in a patient of Grahani, giving due consideration to his Agni; he ranges the duration of treatment with Takra for either 1 week, 10 days, 15 days or maximum for a month. In this duration Takra is administered in the morning and Takra or Takralehika or Takrapeya with rock-salt or Takrandana with fat is administered in patients with poor, good, better and still better state of Agni respectively.¹⁴

Consideration of Butter milk

Buttermilk is made from low-fat milk with added bacterial cultures to thicken it and to sharpen the taste. It is similar to skimmed milk in its nutritional value.

Nutritional fact of 100 ml Butter milk

Calorie 41	
Total Fat 0.88 g	Potassium, K 151.00 mg
Saturated Fat 0.55 g	Phosphorus, P 89.00 mg
Trans Fat 0 g	Riboflavin (B-2) 0.15 mg
Polyunsaturated Fat 0.03 g	Tocopherol, beta 0.02 mg
Monounsaturated Fat 0.25 g	Fluoride, F 4.00 mcg
Calories from Fat 7.92	Threonine 0.16 g
Cholesterol 4.00 mg	Glutamic acid 0.64 g
Sodium 105.00 mg	Folate, DFE 5.00 mcg_DFE
Total carbs 4.79 g	Carotene, beta 1.00 mcg
Fiber, total dietary 0 g	Lysine 0.28 g
Sugars, total 4.79 g	Energy 169.00 kj
Protein 3.31 g	Retinol 7.00 mcg
Vitamin A 26.00 IU	Arginine 0.13 g
Vitamin C 1.00 mg	Vitamin A, RAE 7.00 mcg_RAE
Calcium 116.00 mg	Tyrosine 0.14 g
Iron 0.05 mg	Folate, food 5.00 mcg ¹⁵

The acid forming bacteria, the commonest being Streptococci and the Lactobacilli, ferment lactose in the milk, producing acids mainly lactic acid which lead to formation of curds which are further carried on in the buttermilk. If we see the normal flora of the intestinal tract, the no. of bacteria increases progressively beyond the Duodenum in the Colon, being comparatively low in the small intestine. In the adult Duodenum there are 10³-10⁶ bacteria / g, in the Jejunum and Proximal Ileum 10⁵-10⁸ bacteria /g and in lower Ileum and Cecum 10⁸-10¹⁰ bacteria /g. In the Duodenum and upper Ileum Lactobacilli and Enterococci predominate but in the lower Ileum and Cecum the flora resemble the fecal flora. These genus of bacteria specifically the Lactobacilli carry out homolactic fermentation where in they produce mainly lactic acid from the glucose these include *L. lactis*, *L. bulgaricus*, *L. leichmannii*, *L. acidophilus* etc. The

Possession of Intestinal flora seems to have both advantages and disadvantages. If the intestinal flora in man is altered by administration of antibiotics, intestinal activity may get deranged and the patient may suffer from diarrhea with large volume of flatus. Thus administration of Takra encourages the normal acid producing organisms in the GI, as it is the administration of cultured fermentative organisms, the use of which can be summarized as below.¹⁶⁻¹⁷

- Useful source of water soluble B-vitamin and Minerals, including valuable amounts of Vit. B₁, B₂, Niacin, B₆, B₁₂, Phosphorus and Zinc.
- Helps to replace valuable bacteria in the gut killed by antibiotics and boost immune system.
- Helps to prevent bad breath, constipation and diarrhea.
- Aids in digestion.
- Live organisms discourage the proliferation of harmful bacteria and yeast in the gut that lead to bowel infection.
- It restores necessary intestinal bacteria that are helpful in diarrhea due to food poisoning, irritable bowel syndrome etc.
- Alters the balance of bacteria in the large bowel in a way that may protect against Colon cancer.

Further on, in Modern Pharmacology we come across the preparation '*Lactobacillus acidophilus*' under the symptomatic and supportive drug therapy which is administered orally in the treatment of certain chronic diarrheas to promote the growth of saccharolytic flora and alter the intestinal PH so as to inhibit the growth of pathogens. For which curds and buttermilk are a pleasant and cheaper substitute.

CONCLUSION

It cannot be concluded by these framework ever, it was observed that we can make a preliminary assessment regarding the effectiveness of this Takra in Grahani treatment. It is hoped that researchers would come to find such rays buried in those unseen in future for the betterment of human kind.

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Cite this article as:

Ravi Shankar Khatri, Jina Pattanaik, Yogesh Kumar. Efficacy of takra (butter milk) in Grahani roga: A conceptual approach. *J Biol Sci Opin* 2014;2(4):272-274 <http://dx.doi.org/10.7897/2321-6328.02461>

Source of support: Nil; Conflict of interest: None Declared