

**ROLE OF BASTI IN MAINTAINING PHYSIOLOGY OF GUT
MICROBIOTA A CONCEPTUAL STUDY****Ankita Korde^{1*}, Ramesh Bansode², Bhargav Tappe³ and Ranjit Deshmukh⁴**

¹Assistant Professor, Department of Kriya Sharir, P. R. Pote. Patil College of Medical Sciences & Ayurveda Amravati.

²Prof. and Hod Kriya Sharir Department Government Ayurved College Jalgaon.

³Associat Professor in Kriya Sharir at P. R. Pote. Patil. College of Medical Sciences and Ayurveda Amravati.

⁴Prof. & Hod Rachana Sharir at P. R. Pote. Patil. College of Medical Sciences and Ayurveda Amravati.

Article Received on
09 May 2024,

Revised on 29 May 2024,
Accepted on 19 June 2024

DOI: 10.20959/wjpr202413-31888



***Corresponding Author**

Dr. Ankita Korde

Assistant Professor,
Department of Kriya Sharir,
P. R. Pote. Patil College of
Medical Sciences &
Ayurveda Amravati.

ABSTRACT

Gut Microbiota are microorganisms including bacteria, Fungi, viruses & other microbes which effects on resistance to pathogens, intestinal epithelium maintenance & metabolism of dietary compounds. 'Microbiome' is a Largest collection of 30 trillions of bacteria which are located in the Gut. Gut Microbiota plays an important role in digestion, energy homeostasis, synthesis of vitamins & other nutrients. Now a days because of disturbed life style & food habits people are commonly suffering from gastrointestinal issues. Gut microbiota is a complex ecosystem predominantly found in colon. Functional changes within Gut microbiota contributes to various diseases. What we eat & digest impacts on our gut home. 'Dysbiosis' means disturbance in beneficial microbiota which is caused by dietary changes & psychological stress. Dysbiosis is also one of the root cause behind digestive disorders. Basti is significant per rectal ayurveda based

treatment having multi targeted actions. Basti detoxify the system & improve Gut health. Thus this paper is an effort to explore conceptual review of role of Basti to maintain Physiology of Gut Microbiota.

KEYWORDS: Basti, Rectal Route, Microbiota, Gut, Ayurveda, Dysbiosis.

INTRODUCTION

The human gastrointestinal tract harbours a complex and dynamic population of microorganisms. Most of the microbes of intestine are found in 'Pocket' of large intestine called caecum termed as 'Gut Microbiome'. In Gastrointestinal tract of humans there are 10 times or many microorganisms are located. The number, type, function of microbes vary along the length of gastrointestinal tract and majority is found within the large intestine where they contribute to the fermentation of undigested food components. The microbiota offers many benefits to the human body through a variety of physiological functions like strengthening gut integrity, shaping intestinal epithelium, regulating host immunity etc. Intestinal bacteria play a crucial role in maintaining immune and metabolic homeostasis and protecting against pathogens. Altered gut bacterial composition means Dysbiosis & it is associated with pathogenesis of many inflammatory diseases & infections. There are five detoxifying procedures i.e panchkarma procedures advocated in Ayurveda. 'Basti' is one of the most powerful of the main five panchkarma procedures. Basti cleanses area of Vata dosha whose focal point is the large intestine. In basti karma the medicated oil or herbal decoction is administered through the anal route. In modern medicine also enemas are most commonly given to clean the lower bowel as a last resort for constipation treatment when all other methods are fail. Basti Karma mentioned in Ayurvedic classics is having broader therapeutic action on almost all the tissues of the body and have rejuvenative, curative, preventive, and health promotive actions. People now a days are aging very fast due to their work stress. Diet of only junk food, overeating and lack of physical activity worsens the status of digestive system. Such type of disturbed life style and food habits gives rise to 'Dysbiosis'. Dysbiosis may be root cause for various digestive issues. At the same time in Ayurveda, it is said that all of diseases of body are generated with disturbance of digestive process. Basti is said to be equal to half of all ayurvedic treatments & it is most effective treatment for abdominal and systemic vata disorders. Due to changing lifestyle, improper food habits people are suffering from disturbed digestive status which may be cause of Dysbiosis. Basti is such detoxifying therapy which can help to maintain the favourable medium & habitat for beneficial gut microbiota. This paper is focused to explore a conceptual review of role of Basti in maintaining Physiology of Gut microbiota.

AIMS AND OBJECTIVES

- 1) To study the concept of Gut Microbiota
- 2) To study the role of Basti in maintaining physiology of Gut Microbiota

MATERIAL AND METHOD

A) Literature search -Review of literature regarding Gut Microbiota collected from Textbook of Medical Physiology of Pravati Pal Nivedita Nanda as well as research articles were searched from various websites.

B) Type of Study – Conceptual study

Review of gut microbiota

Microbiota refers to the collective genomes of micro-organisms in a particular environment

Microbiota is the community of micro-organisms themselves. Approximately 100 trillion micro-organisms (Most of them bacteria, but also viruses, fungi, and protozoa) exist in the human GIT. The Gut is the main location of the human microbiome.

Functions of gut microbiota

Effects on colonization, Resistance to pathogens, Maintaining the intestinal epithelium, Metabolizing the dietary and pharmaceutical compounds, Controlling immune function, Controlling behavior through the gut-brain axis.

Factors influencing gut microbiota

Genetics, Anthropometric measurements (Prakriti), Environmental factor, Diet, Drugs.

Composition of gut microbiota

It varies across the regions of the digestive tract. There are 300 -1000 different species. Largest population is of Bacteria i.e 99%, over 99% of Bacteria are anaerobes. Up to 60% of dry mass of feces is bacteria.

Concept of dysbiosis

It is the disruption to the microbiome which creates imbalance in the microbiota, changes in functional composition & metabolic activities. Dysbiosis can be caused by dietary changes, psychological stress, chronic & acute infections, inflammation of intestine, excessive fungal growth in intestine, oral dysbiosis can be caused by frequent exposure of novel microbes which disturbs the Gut microbiota, use of different therapy like radiation, chemotherapy.

Ayurvedic view of gut microbiota

“Man is created from food and so are diseases”. Food is one of the “three pillars of Life”. Concept of Jathar Agni & Dhatu Agni can be correlated with Digestive capacity & Metabolic

capacity respectively. The concept of Agni covers all the enzymatic activities taking place in GIT.

Review of basti definition of basti

Medical Procedure in which liquid medicines are administered through anal route is called as 'Basti'.

Action of basti chikitsa

Basti chikitsa is multi targeted treatment. Dosha shodhan i.e expelling the morbid doshas from the body, Samshamana (Pacifying the aggravated doshas), Brimhana means it promotes bulk, langhan (Emaciation of people who are obese), vaya sthapana (Anti ageing action), it enhances the colour & complexion, strength, health, life etc. In ayurveda Basti is main treatment for vata dosha & main location of Vata dosha is Pakwashay which is mostly correlated with large intestine in modern. Basti is administered by anal route. Anus is ending part of large intestine so intension behind tha Basti chikitsa may be detoxification of large intestine which is one of the significant area of gastro intestinal tract. 'Agnimandya' is the basic cause behind any disease according to Ayurveda. Agnimandya means condition in which the food is not properly digested due to the diminished power of digestive fire. Undigested food called as "Ama" in Ayurveda. improper digestion results in the formation complex in the Gut, which acts as a poison & may results into Dysbiosis. Basti is detoxifying therapy so here Basti can be a most powerful treatment for elimination of poison like substances after Pachan chikitsa. At the same time Dysbiosis is also caused by some digestion related issues. Disturbed or excessive growth of Gut microbiota can be eliminated by Proper Basti Chikitsa & balance can be created in Gut microbiota.

DISCUSSION

Major location of Gut microbiota is large intestine. Gut microbiota is a vast and complex collection of microorganisms that profoundly affects the health. Functions of Gut microbiota are protecting against pathogens, regulating immune function, strengthening biochemical barriers of the gut & intestine. The activity & composition of the microbiota is affected by age, diet, health status of the host. Basti is ayurveda treatment for detoxification of Gastro intestinal system which enhances overall physical & mental health. Frequent & Chronic history of wrong ditary habits & disturbed life style, mental stress detoriates the physiology of gut microbiota. symptoms of Dysbiosis are digestive problems, acid reflux or heartburn, rectal infections, inflammation of intestine, abdominal cramps, bloating, gases distension,

psoriasis, food intolerance, chronic fatigue, irritable bowel syndrome, obesity, cardiovascular problems, central nervous system disorders etc. In Ayurveda Basti is called as “Ardha chikitsa”. It is multi targeted ayurveda treatment in which mostly Gut is detoxified because of elimination of toxins. This toxins refers to vitiated accumulated doshas because of disturbed food habits & life style. As toxins are removed by basti. This toxins may be disturbed composition of microbiota present in Gut & that should be eliminated by special type of required basti chikitsa as it works on same site where there is major location of Gut microbiota. On the basis of above review we can say that functions of beneficial Gut microbiota & effects of Basti in ayurveda are mostly equivalent to each other to as the symptoms of Dysbiosis & indications of Basti chikitsa are approximating each other. Also the Site of route & action of Basti Chikitsa exactly matches with major location of Gut microbiota i.e Large intestine. As Age advances vat dosha & health issue like digestive problems, immunity disorders increases & also along with age there is deterioration of healthy gut microbiota .So Age is also the resembling factors to correlate the microbiota & basti chikitsa. Basti is best treatment for vat dosha so in order to improve gut microbial status in old age proper Basti may be the effective treatment.

CONCLUSION

By studying the concept of Gut microbiota & Basti. Indications for Basti chikitsa and symptoms of Dysbiosis of Gut microbiota are analogous to each other. Factors responsible for Dysbiosis & Causes of GIT disorders which can be treat by Basti are also parallel to each other. Major location of Gut microbiota & main site of action of Basti are also same i.e Large Intestine. So we can conclude that their may be important role of properly planned Basti after taking all the detail history of patient & others factors into consideration like Age, Bala, Kala, Desha etc as this factors impacts on Gut microbiota & health status according to modern & Ayurveda respectively.

REFERENCES

1. Comprehensive Textbook of Medical Physiology second edition Pravati Pal Nivedita Nanda Jaypee publications, 2022; 1.
2. Article on Nutrients Impact of Diet and lifestyle on Gut Microbiota and human health- NCBI, 2015; (1): 17-44.
3. https://en.m.wikipedia.org/wiki/Human_microbiome
4. https://en.m.wikipedia.org/wiki/Gut-Brain_axis

5. [https://en.m.wikipedia.org>wiki- Dysbiosis](https://en.m.wikipedia.org/wiki/Dysbiosis)
6. Comprehensive Textbook of Medical Physiology second edition Pravati Pal Nivedita Nanda Jaypee publications, 2022; 1.
7. Guyton and Hall Textbook of Medical Physiology John. E. HALL, 14.
8. Vd Bramhanand Tripathi, Asthanghrudayam Reprint, Varanasi, Chaukhamba Prakashan, 2019.
9. Ayushi International Interdisciplinary Research Journal Paper review – e –Journal ISSN - 2349-638x importance of Basti In Panchkarma Chikitsa - A Review Dr Raghunath Shiwram Raut, 2020; VII: VII.