Improving the Immunity of Human Beings with the help of Probiotics Pills

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Abstract — Probiotics play an essential role in the human body, which provides a lot of benefits to human beings to live healthily. Generally, the Probiotics are microorganisms, such as bacteria, that improve our immunity power. These kinds of bacteria are good, supporting our foods and some other body problems. More than 500 different types of bacteria live in our digestive system to help digest our food and improve our immunity. These types of microorganisms are live in food supplements. This paper proposes this probiotic for increasing the lifetime of human beings.

Keywords -Microorganisms, Lactobacillus, Immune system.

I. INTRODUCTION

Probiotics are the microorganisms that are the good bacteria that provide more benefits to humans. These kinds of Probiotics are introduced in our body through the food supplements and lives in the digestive system. This kind of bacteria plays an important role in the human body to improve their immune system. The challenge behind identifying the Probiotics is a lack of knowledge about their actions. Probiotics aim to provide benefits to the immune system of the human body. The introduction of Probiotics would not produce large side effects; it will produce a few side effects. The yogurt is the famous probiotics that act as yeast for the food items and increase the taste of sourness in food. Some types of Probiotics are lactobacillus, bifidobacteria, saccharomyces boulardii, streptococcus, thermophilus, enterococcus faecium, leuconostoc, etc. The most used Probiotics are lactobacillus, which produces a billion cells per day and protects against stomach pain and other pains, and also it improves the growth and health condition specifically for the children's body. The remaining part of this paper discusses the different benefits of Probiotics, immunity system, benefits, and disadvantages of Probiotics.

II. DIFFERENT TYPES OF PROBIOTICS AND ITS BENEFITS

Generally, the Probiotics are microorganisms which are good bacteria. These kinds of bacteria live in

the human body's digestive system, and these bacteria are introduced into the human body through the food supplements. There are a lot of Probiotics in our body dome of them are as follows

- Bifidobacteria
- Lactobacillus
- Leuconostoc
- Saccharomyces boulardii
- Streptococcus thermophilus
- Enterococcus faecium

The lactobacilli are around 50species, which are living in our digestive system and the urinary system naturally. The lactobacillus bacterium in our body provides treatment and protection against stomach pain and various diseases. Some of the lactobacillus present in the food supplements are blugaricus, lactobacillus acidophilus, and lactobacillusplanetarium, lactobacillus johnsonii, lactobacillus casei, lactobacillus gasseri, and lactobacillus reuteri. Some of the important benefits of the lactobacillus bacteria are preventing urinary tract infection, diarrhea, bowel syndrome, etc. The lactobacillus is given to the children to prevent and cure diarrhea and some other diseases. In our body digestive system, there are 30 species of bifidobacteria lives in our digestive system. The bifidobacteria which are present in food supplements are as follows

- Bifodbacteriumlactis
- Bifodbacteriumbifidum
- Bifodbacteriuminfantis
- Bifodbacteriumbreve
- Bifodbacteriumpseudolongum
- Bifodbacteriumthermophilum



Fig.1 Probiotics

The Saccharomyces boulardii act as yeast, which lives in the digestive system to digest our food supplements. Streptococcus thermophilus is used for the prevention of lactose intolerance because it produces a large number of enzymes lactase. Micro bacteria which are present in the miso soup give better digestion for food feeding times. Probiotics are also available in the form of capsule, powder, and tablet, and liquid. Before eating, the taking of honey puts our digestive system in good condition.

III. MICROORGANISMS

Microorganisms are otherwise called microbes which can see only through the microscope. The microorganisms consist of bacteria, Probiotics, fungi, and virus; there is both a good and bad microorganism, but the Probiotics isa good bacterium that helps to live the humans healthier. Those microorganisms maintain nature and clean the harmful things from our environment; it cleans the toxics from soil and water. And also, these kinds of microorganisms are used to degrade the natural wastes, which are biodegradable. For human beings these Probiotics are helpful to digest the foods they eat.



Fig.2 Microorganisms Hierarchy

The Probiotics are needs because our body is entirely made up of cells. In each cell, there are millions of bacteria living. Both the bad and good bacteria live in our cells, but the good bacteria like lactobacilli provide better digestion of our food feed. The bad bacteria are pathogenic, which are causes viral diseases. The Probiotics molecular mechanisms are as follows

- In the junction region of epithelial cell, Probiotics are enhancing the phosphorylation.
- Probiotics signal the cells when the pathogenic and other bad bacteria are in action.
- We are modifying our cells' immunity activities to protect against the diseases and digest our food feeds.
- We are modifying the nuclear factor-kB.
- It is preventing intestinal epithelial cells by tumor necrosis factor.

IV. IMPROVING IMMUNITY SYSTEM OF HUMANS

The immune system is an amazing thing in the human body made up of a network of organs, cells, and tissues. Which is protecting our body from the diseases and the viruses which cause the diseases? The human body provides a place to live the microorganisms because the human body is a better environment for microorganisms or microbes, and they try to break our body healthiness. When the immune system is treated wrongly by the microorganisms, the body is attacked by diseases such as AIDS, allergy, cholera, and other viral diseases. Now a day, the foods are manufactured and packaged with an OK cleaning process. During the cleaning and package process, the bacteria (good and bad), which are present in the food materials, are removed so that human beings' immunity is now a day's decreased. To solve this problem, we need a better solution for removing only the pathogenic from the food materials. The solution is to increase the introduction of Probiotics in food supplements.



Fig.3 Human Immune System

Probiotics are live in the food supplements, which are beneficial bacteria for human beings. Adding the Probiotics manually in our food supplements will increase our immunity power, and we live for long life healthily without affecting the diseases. The main objective of feeding the Probiotics is to reduce the effects of cancer and decrease cancer growth. The experiments proved feeding of Probiotics decreases the cancer risks. In the water, the presence of Probiotics helps to clean the water and maintain the ph level of introduction water. The of pathogenic the microorganism and toxic components are removed from the water.

IV. CONCLUSION

Probiotics are beneficial bacteria, which are microorganisms. These microorganisms live in the human body to provide a better digestive system and decrease diseases. This paper's main objective is to increase human lifetime by increasing the immune system of humans. This can be achieved by introducing the Probiotics microorganism in our body through the food supplements. The problem behind these food feed is we must identify the good bacteria and bad bacteria. This identification of the microorganisms and their functions are taken as a future work.

REFERENCES

- [1] Parker RB. "*Probiotics, the other half of the antibiotic story*". Animal Nut.Health.1974; 29:4–8.
- [2] Havenaar R and J H J Huisaren't Veld. "Probiotics: a general review". The Lactic Acid Bacteria, 1992; 1:151-170.
- [3] Havenaar R, Ten Brink B, and Huisaren't Veld J H J. "Selection of strains for probiotic use". Chapman and Hall, London.1992; 1:209-224.

- [4] Anuradha S and Rajeshwari K. "Probiotics in health and disease". JIACM 2005; 6:67-72.
- [5] Ng SC Hart AL, Kamm MA, Stagg AJ, and Knight SC. "Mechanisms of action of probiotics: recent advances". Inflamm Bowel Dis. 2009; 15(2):300-10.
- [6] Bengmark S. "Ecological control of the gastrointestinal tract: the role of probiotic flora". Gut, 1998; 42:2–7.
- [7] Vanderhoof JA, Young R. "Use of probiotics in childhood gastrointestinal disorders". J PediatrGastroenterolNutr1998; 27:323–32.
- [8] Saavedra JM. "Microbes to fight microbes: a not so novel approach to controlling the diarrheal disease". J PediatrGastroenterolNutr1995; 21: 125–9.
- Mcfarlane G, Cummings JH. "Probiotics and prebiotics: can regulate the activities of intestinal bacteria benefit health?" BMJ 1999; 318: 999–1003.
- [10] Hozapfel WH, Haberer P, Snel J, Schillinger U, Huisisn't Veld JHJ. "Overview of gut flora and probiotics". Int J Food Microbiol 1998; 41: 85–101.
- [11] Shortt C. "Living it up for dinner". Chemistry Industry 1998; 8:300–3.
- [12] Sanders ME. Probiotics.Food Technol1999; 53:67-77.