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Extended Abstract
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Global Pharmacovigilance 2016 : Probiotics and anti-cancer pharmabiotics - Samira Mokhtari - Gorgan University

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Cancer is ranked as the deadliest disease worldwide after cardiovascular disease. Tens millions cases annually are diagnosed to cancer around the world and among them, colorectal cancer is the third leading cause of cancer mortality. There are several epidemiological evidences supporting a protective role of probiotic bacteria as biotherapeutics against many types of cancer such as breast, liver, pancreatic, lung, prostate and especially colon cancer. Today growing number of probiotic products are avaliable as functional foods, food supplements and drug form supplements as tablets, powders, liquids, gums, shells, beads, and lozenges. In vivo and In vitro studies demonstrated that cellular probioactive metabolites of probiotics such as enzymes, peptides, organic acids, exopolyschacaride and especially short fatty acids produced through fermentative activities of probiotics in the gut show anti-tumorigenic attributes. Lactic Acid Bacteria (LAB) as the most common types of probiotics are an ecologically divers group of bacteria united by producing lactic acid as fermentation product play a major role in treatment and prevention of a variety of disease like cancer. Their anti-cancer activity is atributed to reduction of DNA damage induced by chemical carcinogens and increase activity of anti-oxidative enzymes that protects cells against carcinogeninduced damage. Further their metabolites, it has also been reported that ingredients of decomposed probiotic dead bodies have preventive and therapeutic impacts on cancer when they die and leave epithelial texture of the host's colon. This paper summarizes the latest identified anti-tumor pharmabiotics from different species of probiotic bacteria with focus on LAB. Malignant growth is a gathering of illnesses including strange cell development with the possibility to attack or spread to different pieces of the body. These diverge from considerate tumors, which don't spread. Possible signs and manifestations incorporate a protuberance, anomalous dying, delayed hack, unexplained weight reduction, and an adjustment in gut movements. While these side effects may show disease, they can likewise have other causes. Over 100 kinds of malignant growths influence humans. Tobacco use is the reason for about 22% of malignant growth deaths. Another 10% are because of corpulence, terrible eating routine, absence of physical movement or over the top drinking of alcohol. Other variables incorporate certain diseases, presentation to ionizing radiation and ecological pollutants. In the creating scene, 15% of tumors are because of contaminations, for example, Helicobacter pylori, hepatitis B, hepatitis C, human papillomavirus contamination, Epstein–Barr infection and human immunodeficiency infection (HIV). These components demonstration, at any rate mostly, by changing the qualities of a cell. Typically, numerous hereditary changes are required before malignancy develops. Approximately 5–10% of tumors are because of acquired hereditary deformities from an individual's parents. Cancer can be distinguished by specific signs and side effects or screening tests. It is then commonly further examined by clinical imaging and affirmed by biopsy. Numerous tumors can be forestalled by not smoking, keeping up a solid weight, not drinking a lot of liquor, eating a lot of vegetables, products of the soil grains, immunization against certain irresistible infections, not eating an excessive amount of handled and red meat and maintaining a strategic distance from a lot of daylight exposure. Early recognition through screening is valuable for cervical and colorectal cancer. The advantages of screening in bosom malignancy are controversial. Cancer is regularly rewarded with a mix of radiation treatment, medical procedure, chemotherapy and focused on therapy. Pain and side effect the executives are a significant piece of care. Palliative consideration is especially significant in individuals with cutting edge disease. The possibility of endurance relies upon the sort of malignancy and degree of malady toward the beginning of treatment. In kids under 15 at analysis, the five-year endurance rate in the created world is on normal 80%. For malignant growth in the United States, the normal five-year endurance rate is 66%. In 2015, about 90.5 million individuals had cancer. About 14.1 million new cases happen a year (excluding skin malignant growth other than melanoma). It caused about 8.8 million passings (15.7% of deaths). The most widely recognized sorts of disease in guys are lung malignant growth, prostate malignancy, colorectal disease and stomach cancer. In females, the most well-known sorts are bosom disease, colorectal malignancy, lung malignant growth and cervical cancer. If skin malignant growth other than melanoma were remembered for all out new malignancy cases every year, it would represent around 40% of cases. In youngsters, intense lymphoblastic leukemia and cerebrum tumors are generally normal, aside from in Africa where non-Hodgkin lymphoma happens more often. In 2012, around 165,000 kids under 15 years old were determined to have cancer. The danger of disease increments altogether with age, and numerous malignant growths happen all the more regularly in created countries. Rates are expanding as more individuals live to a mature age and as way of life changes happen in the creating world. The money related expenses of disease were assessed at $1.16 trillion USD every year starting at 2010. Probiotics are live microorganisms advanced with claims that they give medical advantages when devoured, for the most part by improving or reestablishing the gut flora. Probiotics are viewed as commonly safe to expend, yet may cause microscopic organisms have connections and undesirable symptoms in uncommon cases. There is little proof that probiotics bring the medical advantages asserted for them. The first hypothesis, like the advanced idea, yet not the term, is by and large credited to Nobel laureate Élie Metchnikoff, who proposed that yogurt-expending Bulgarian laborers

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lived longer. A developing probiotics showcase has prompted the requirement for stricter prerequisites for logical validation of putative advantages presented by microorganisms professed to be probiotic. Although various asserted advantages are promoted towards utilizing customer probiotic items, for example, diminishing gastrointestinal inconvenience, improving insusceptible health.

Biography

Samira Mokhtari has recently completed her Master's course at the age of 25 in Food Microbiology from Gorgan University. She have worked on probiotic bacteria as her thesis and had 4 under submision papers in this fuild. She was also a co-worker in a PhD thesis under the title of "Molecular identification of lactic acid bacteria isolated from dairy products and study of their anti-cancer properties" under the supervision of Dr. Khomeiri, Associate Professor in University of Gorgan. her papers include: 1. Producing of functional grape juice by probiotic bacteria and evaluate its physicochemical and sensory characteristics and survival of bacteria during the storage (under submission). 2. Evaluation of types of produced non-dairy functional beverages by probiotics. (Published in 1st National Conference on novel Food Sciences, Iran, 2014).

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