CRITERION 3

3.3.1. NUMBER OF RESEARCH PAPERS PER TEACHERS IN THE JOURNALS NOTIFIED ON UGC WEBSITE DURING THE YEAR

MS. SHRUTI GUPTA

DR. NEHA GAUTAM

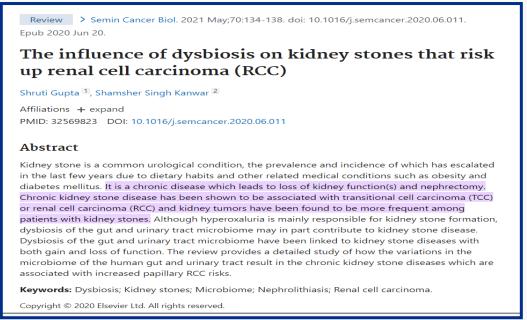
MS. ANU KUMARI

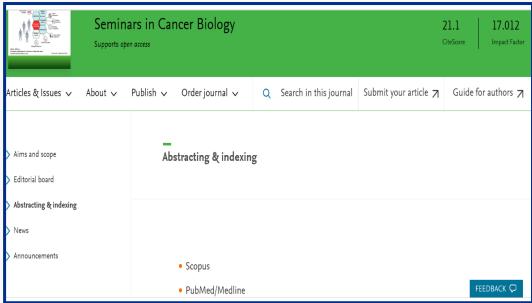


Ms.Shruti Gupta- Biotehnology
 Reseach Journal- Seminar in Cancer Biology
 ISSN Number-1044-579X
 Year- 2020

Link to website of the Journal - <u>Seminars in Cancer Biology | Journal | ScienceDirect.com by</u> Elsevier

Link to article/paper/abstract of the article <u>The influence of dysbiosis on kidney stones that</u> risk up renal cell carcinoma (RCC) - ScienceDirect





Ms. Shruti Gupta (Scopus)



Abstract

Kidney stone is a common urological condition, the prevalence and incidence of which has escalated in the last few years due to dietary habits and other related medical conditions such as obesity and diabetes mellitus. It is a chronic disease which leads to loss of kidney function(s) and nephrectomy. Chronic kidney stone disease has been shown to be associated with transitional cell carcinoma (TCC) or renal cell carcinoma (RCC) and kidney tumors have been found to be more frequent among patients with kidney stones. Although hyperoxaluria is mainly responsible for kidney stone formation, dysbiosis of the gut and urinary tract microbiome may in part contribute to kidney stone disease. Dysbiosis of the gut and urinary tract microbiome have been linked to kidney stone diseases with both gain and loss of function. The review provides a detailed study of how the variations in the microbiome of the human gut and urinary tract result in the chronic kidney stone diseases which are associated with increased papillary RCC risks.

Introduction

Urolithiasis or kidney stones disease is one of the most widespread urological disorders with its prevalence and incidences increasing at an alarming rate affecting around one tenth of the population all over the world. Since males possess greater muscular mass and because of thehigh levels of androgenas well aslack of inhibiting ability of estrogen, kidney stone are more prevalent in males than in females. The kidney stone diseaseaffects all age groups from less than 1 year old to more than 70 years. An increased morbidity and economic burden has been imposed all over the world due to increase in incidence of nephrolithiasis (kidney stones) [1]. The prime cause of nephrolithiasis is the super saturation of urine with calcium and oxalate that leads to pathological mineralization in the kidneys. Numerous factors like drugs such as antibiotics, environment, socioeconomic status, diet, host genetics and metabolism have been considered to be associated with the urinary stone disease [2]. Current findings suggest that the urinary tract microbiome remarkably affects the kidney stone disease. The dysbiosis or changes in their level in patients with kidney stones have also been proved experimentally in several studies [3]. Dysbiosis can be defined by the loss or gain of bacteria which promotes either disease or health, respectively. Environmental factors such as use of antibiotics lead to dysbiosis thereby causing a shift in the microbiome resulting in increased inflammation and the onset of chronic diseases [4].

Chronic kidney stone disease may ultimately result in the loss of kidney function and other co-morbidities such as asthma, cardio muscular diseases, diabetes and metabolic syndrome. Further, it might also be associated with transitional cell carcinoma (TCC), renal cell carcinoma (RCC) and kidney tumors as the incidences of these diseases have been found to be more in patients with kidney stones [2,5]. As the kidney stones and urinary stones are present at the same position in the body as the kidney tumors, patients with kidney stones are at a greater risk for kidney tumors and carcinomas due to chronic infection and irritation [6].

Ms. Shruti Gupta

2. Neha Gautam- Microbiology

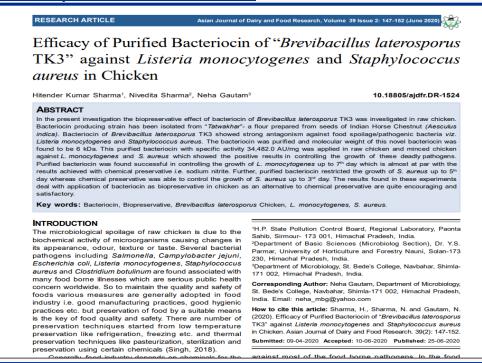
Reseach Journal- Asian Journal of Dairy and Food Research

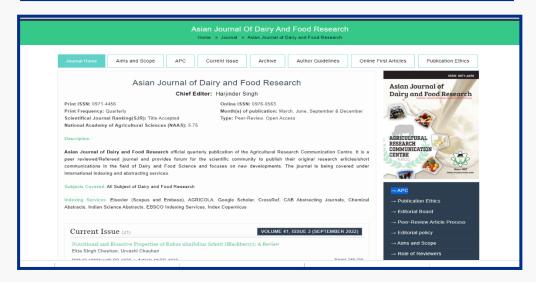
ISSN Number- 0976-0563

Year- 2020

Link to website of the Journal- https://arccjournals.com/journals/asian-journal-of-dairy-and-food-research

Link to article/paper/abstract of the article- https://arccjournals.com/journal/asian-journal-of-dairy-and-food-research/DR-1524





Dr. Neha Gautam (Scopus)



St. Bede's College Shimla

Asian Journal of Dairy and Food Research, Volume 39 Issue 2: 147-152 (June 2020)



Efficacy of Purified Bacteriocin of "Brevibacillus laterosporus TK3" against Listeria monocytogenes and Staphylococcus aureus in Chicken

Hitender Kumar Sharma¹, Nivedita Sharma², Neba Gautam³

10.18805/ajdfr.DR-1524

ABSTRACT

In the present investigation the biopreservative effect of bacteriocin of Brevibacilus laterosporus TK3 was investigated in raw chicken. Bacteriocin producing strain has been isolated from "TatesAhar"- a flour prepared from seeds of Indian Horse Chestnut (Assculus indica). Bacteriocin of Brevibecillus laterosporus TKS showed strong antagonism against food spoilage/pethogenic bacteria viz. Listeria monocytogenes and Staphylococcus aureus. The bacteriocin was purified and molecular weight of this novel bacteriocin was found to be 6 KDs. This purified bacteriocin with specific activity 34,482.0 AU/mg was applied in raw chicken and minced chicken against L. monocytogenes and S. sureuz which showed the positive results in controlling the growth of these deadly pathogens. Purfied bacteriodin was found successful in controlling the growth of L. monocytogenes up to 7th day which is almost at par with the results achieved with chemical preservative i.e. sodium nitrite. Further, purified bacteriocin restricted the growth of 5. aureus up to 5° day whereas chemical preservative was able to control the growth of 5, aureuz up to 3rd day. The results found in these experiments deal with application of bacteriocin as biopreservative in chicken as an alternative to cher

Key words: Bacteriocin, Biopreservative, Brevibacillus laterosporus Chicken, L. monocytogenes, S. aureus.

INTRODUCTION

The microbiological spoilage of raw chicken is due to the biochemical activity of microorganisms causing changes in its appearance, odour, texture or taste. Several bacterial pathogens including Salmonella, Campylobacter jejuni, Escherichia coli, Listeria monocytogenes, Staphylococcus aureus and Clostridium botulinum are found associated with many food borne illnesses which are serious public health concern worldwide. So to maintain the quality and safety of foods various measures are generally adopted in food industry i.e. good manufacturing practices, good hygienic practices etc. but preservation of food by a suitable means is the key of food quality and safety. There are number of preservation techniques started from low temperature preservation like refrigeration, freezing etc. and thermal preservation techniques like pasteurization, sterilization and preservation using certain chemicals (Singh, 2018).

Generally, food industry depends on chemicals for the preservation of foodstuff and to increase the shelf life of food. Chemical preservatives and other conventional preservation strategies fail to deliver the requisite health benefits and cause serious disorder thus necessitates seeking alternatives (Sarika et al., 2019). Hence, according to an increased negative perception towards chemical preservatives and a trend towards natural food additives so called "clean- labeling" has driven exploring of effective natural antimicrobial compounds as an alternative to synthetic food additives (Castillano et al., 2008). The use of bacteriocins is a promising ongoing development in food preservation as bacteriocins have strong antagonism

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against most of the food borne pathogens. In the food industry, becteriocins have been widely utilized for the biopreservation of various foods, either alone, or in combination with other methods of preservation known as hurdle technology (Galvez et al., 2007; Barathiraja et al., 2015). Incorporation of bacteriocins into the food packaging film or surfaces has been explored as well (Zendo, 2013). Bacteriocins are ribosomally synthesized extracellularly released bioactive peptides or peptide complexes that vary in spectrum of activity, mode of action, molecular weight, genetic organization and considered to be safe biopreservatives since they can be digested by proteases thus having no or little influence on the gut microbiota

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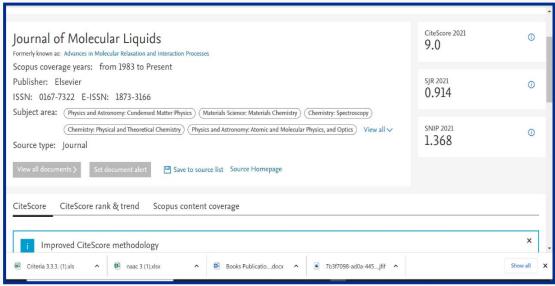
3. Ms. Anu Kumari- Chemistry Reseach Journal- Journal of Molecular Liquids ISSN Number- 0167-7322

Year- 2019

Link to website of the Journal of Molecular Liquids | ScienceDirect.com by Elsevier Link to article/paper/abstract of the article-

https://www.sciencedirect.com/science/article/abs/pii/S0167732219310153





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