



St. Bede's College Shimla
(UGC-NAAC "A+" Grade Re-Accredited)

CRITERION 3

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

NAMES OF THE AUTHORS

MS. SHRUTI GUPTA

DR. NEHA GAUTAM

MS. ANU KUMARI



St. Bede's College Shimla

1. Ms. Shruti Gupta- Biotechnology
Research Journal- Seminar in Cancer Biology
ISSN Number-1044-579X
Year- 2020
Link to website of the Journal- [Seminars in Cancer Biology | Journal | ScienceDirect.com by Elsevier](#)
Link to article/paper/abstract of the article [The influence of dysbiosis on kidney stones that risk up renal cell carcinoma \(RCC\) - ScienceDirect](#)

Review > Semin Cancer Biol. 2021 May;70:134-138. doi: 10.1016/j.semcancer.2020.06.011.
Epub 2020 Jun 20.

The influence of dysbiosis on kidney stones that risk up renal cell carcinoma (RCC)

Shruti Gupta ¹, Shamsheer Singh Kanwar ²


Affiliations + expand
PMID: 32569823 DOI: 10.1016/j.semcancer.2020.06.011

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.

Keywords: Dysbiosis; Kidney stones; Microbiome; Nephrolithiasis; Renal cell carcinoma.

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Seminars in Cancer Biology

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Abstracting & indexing

- Scopus
- PubMed/Medline

FEEDBACK 

Ms. Shruti Gupta (Scopus)



St. Bede's College Shimla

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 the high levels of androgens well as lack of inhibiting ability of estrogen, kidney stones are more prevalent in males than in females. The kidney stone disease affects 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

BACK



St. Bede's College Shimla

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>

RESEARCH ARTICLE 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, Neha Gautam³ 10.18805/ajdfr.DR-1524

ABSTRACT
 In the present investigation the biopreservative effect of bacteriocin of *Brevibacillus laterosporus* TK3 was investigated in raw chicken. Bacteriocin producing strain has been isolated from “Tatwakhar”- a flour prepared from seeds of Indian Horse Chestnut (*Aesculus indica*). Bacteriocin of *Brevibacillus laterosporus* TK3 showed strong antagonism against food spoilage/pathogenic bacteria viz. *Listeria monocytogenes* and *Staphylococcus aureus*. The bacteriocin was purified and molecular weight of this novel bacteriocin was found to be 6 kDa. This purified bacteriocin with specific activity 34,482.0 AU/mg was applied in raw chicken and minced chicken against *L. monocytogenes* and *S. aureus* which showed the positive results in controlling the growth of these deadly pathogens. Purified bacteriocin 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 *S. aureus* up to 5th day whereas chemical preservative was able to control the growth of *S. aureus* up to 3rd day. The results found in these experiments deal with application of bacteriocin as biopreservative in chicken as an alternative to chemical preservative are quite encouraging and satisfactory.

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).

¹H.P. State Pollution Control Board, Regional Laboratory, Paonta Sahib, Sirmour- 173 001, Himachal Pradesh, India.
²Department of Basic Sciences (Microbiolog Section), Dr. Y.S. Parmar, University of Horticulture and Forestry Nauni, Solan-173 230, Himachal Pradesh, India.
³Department of Microbiology, St. Bede's College, Navbahar, Shimla-171 002, Himachal Pradesh, India.

Corresponding Author: Neha Gautam, Department of Microbiology, St. Bede's College, Navbahar, Shimla-171 002, Himachal Pradesh, India. Email: neha_mbg@yahoo.com

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Subjects Covered: All Subject of Dairy and Food Research

Indexing Services: Elsevier (Scopus and Embase), AGRICOLA, Google Scholar, CrossRef, CAB Abstracting Journals, Chemical Abstracts, Indian Science Abstracts, EBSCO Indexing Services, Index Copernicus

Current Issue (21) VOLUME 41, ISSUE 3 (SEPTEMBER 2022)

Nutritional and Bioactive Properties of *Rubus ulmifolius* Sebott (Blackberry): A Review
 Ekta Singh Chauhan, Urvasi Chauhan

APC
 → Publication Ethics
 → Editorial Board
 → Peer Review Article Process
 → Editorial policy
 → Aims and Scope
 → Role of Reviewers

Dr. Neha Gautam (Scopus)

BACK



Efficacy of Purified Bacteriocin of “*Brevibacillus laterosporus* TK3” against *Listeria monocytogenes* and *Staphylococcus aureus* in Chicken

Hbender Kumar Sharma¹, Nivedita Sharma², Neha Gautam³

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INTRODUCTION

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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 (Sanika 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

¹H.P. State Pollution Control Board, Regional Laboratory, Panta Sahib, Simour- 173 001, Himachal Pradesh, India.

²Department of Basic Sciences (Microbiology Section), Dr. Y.S. Parmar, University of Horticulture and Forestry Nauri, Solan-173 230, Himachal Pradesh, India.

³Department of Microbiology, St. Bede's College, Nawbahar, Shimla-171 002, Himachal Pradesh, India.

Corresponding Author: Neha Gautam, Department of Microbiology, St. Bede's College, Nawbahar, Shimla-171 002, Himachal Pradesh, India. Email: neha_mbg@yahoo.com

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against most of the food borne pathogens. In the food industry, bacteriocins 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; Barshiraja 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



St. Bede's College Shimla

3. Ms. Anu Kumari- Chemistry
Research Journal- Journal of Molecular Liquids
ISSN Number- 0167-7322
Year- 2019

Link to website of the Journal- [Journal of Molecular Liquids | ScienceDirect.com by Elsevier](https://www.sciencedirect.com/journal/journal-of-molecular-liquids)

Link to article/paper/abstract of the article-

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

The image shows two side-by-side screenshots. The left screenshot is the abstract of a research article from the Journal of Molecular Liquids, Volume 290, 15 September 2019. The article title is "Recent advances in nano-Fenton catalytic degradation of emerging pharmaceutical contaminants". The authors listed are Amit Kumar, Anamika Rana, Gaurav Sharma, Mu. Naushad, Pooja Dhiman, Anu Kumari, and Florian J. Stadler. The abstract highlights that pharmaceutical pollutants are emerging toxic pollutants and that Fenton, electro-Fenton, and photo-Fenton processes are safe, cheap, and environmentally benign. The right screenshot is a "Certificate of Participation" for the Inter-College National Science Day-2020. It is awarded to a student of St. Bede's College Shimla for active participation in a poster presentation at the Centre of Excellence, Govt. College Sanjauli, on February 27th and 28th, 2020. The certificate is signed by Prof. A. Kumar and Dr. C.R. Mehta.

The image shows the Scopus journal profile for "Journal of Molecular Liquids". The journal is formerly known as "Advances in Molecular Relaxation and Interaction Processes". It has Scopus coverage from 1983 to the present, published by Elsevier with ISSN 0167-7322 and E-ISSN 1873-3166. The subject area is Chemistry: Spectroscopy. The journal's source type is "Journal". Key metrics are displayed: CiteScore 2021 is 9.0, SJR 2021 is 0.914, and SNIP 2021 is 1.368. The interface includes options to view all documents, set document alerts, save to source list, and source homepage. A notification banner at the bottom indicates an "Improved CiteScore methodology".

Anu Kumari (Scopus)