

Annual Congress on Food Science and Nutrition

June 28, 2022 | Webinar

Session Tracks



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Role of vitamin C in management of Covid-19 & boosting immunity

Luxita Sharma
Amity University, India

Coronavirus disease 2019 (COVID-19) is emerging as Pandemic and affecting all over the world. It is placed under the category of infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The common symptoms are fever, cough, cold, fatigue, shortness of breath and loss of sense of smell. Some of the cases that progress to suffer from pneumonia and choking of lungs with multiorgan failure can end up with death. Now this disease or infection is spread by a deadly virus which is named as COVID-19 OR Corona Virus. This is a type of pathogen and it can be inactivated by our immune system. And the nutrients play an important role to maintain our immunity. Vitamin C is also called Ascorbic acid and it is a class of water-soluble vitamin. This vitamin is not produced by human body with a loss of an enzyme in the metabolic processes. Therefore it is necessary to provide Vitamin C through dietary intake. The deficiency of Vitamin C causes Scurvy. Scurvy is known to weaken the collagen, poor wound healing, impaired immunity and teeth pain and bleeding. Individuals with scurvy are highly susceptible to potentially fatal infections such as pneumonia. The respiratory infection is very common in scurvy and its hazardous also for humans to survive. Vitamin C supplementation has been able to both prevent and treat respiratory and systemic infections. It improves activities of the immune system such as antimicrobial and natural killer cell activities. In recent studies in China and USA the Vitamin C supplementation is being given and improvement is seen in the COVID-19 patients. Massive doses of Vitamin C are given for about 1500 milligrams while the recommended dosage is 40-60 mgs per day. A diet of 100-200 mg/day provides adequate Vitamin C in the body. This is the main reason for not getting enough Vitamin C in the body and the other reasons are also the socio-economic status and lifestyle problems also. Lifestyle issues include the malnourishment, unhealthy diets and chronic stress.

Recent publications

1. MANAGEMENT AGAINST COVID-19 THROUGH NUTRITIONAL SUPPLEMENTATION TO BUILD ADAPTIVE IMMUNITY – A SYSTEMATIC REVIEW, Volume 13, Issue 6, June 2022
2. Organoleptic and Physicochemical Properties of Tarts Developed from Quinoa, Chickpea and Oats Flour and Their Ranking by Topsis Method DOI : <https://dx.doi.org/10.12944/CRNFSJ.7.2.15>
3. Dietary management to build adaptive immunity against COVID19 Volume 2 | Issue 2 | e1000016

Biography

Luxita Sharma is Presently Working as Associate Professor and Head of Department of Dietetics and Applied Nutrition, Amity University, Haryana, India, she has 15 plus experience as researcher and an academician.

She is Ph.D. In Food and Nutrition. She has received Asian Education Award. She is also Conferred upon National Nutrition Health Education Award and Society Development award by Nutrition and Natural Health Science Association. She is recipient of Award from Indian Association of Enteral and Parenteral Nutrition in the category of Contribution for Outstanding Accomplishments. She has filed Nine Patents; five patents are published. She has published Seventy-nine Research Papers in National and International Journals She has published Eleven books with National and International Publishers.

lakshita1982@gmail.com

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Buckwheat as potent antihypertensive, antihyperlipidemic and bioenhancer

Nigar Naqvi

Consultant Dietician Era's Lucknow Medical College and Hospital, India

Buckwheat (*Fagopyrum esculentum*) is also known common buckwheat or kuttu ka atta, which belongs to polygonaceae family. Buckwheat is proposed to have antihypertensive and lipid lowering properties due to the presence of antioxidants and phytochemicals like quercetin, rutin, epicatechin-dimethylgallate. It is rich in complex carbohydrate, therefore it is referred as pseudocereal, buckwheat is a broad-leaved herbaceous annual, which belongs to the Polygonaceae family. 100 gm of buckwheat provide 343 calories, 3.4 gm lipid, 71.5 gm of carbohydrate & 10 gm of fibre. Buckwheat flour has highest protein (19.0 gm) content among all cereals. The amino acids in buckwheat protein are well balanced & rich in lysine, methionine, histidine & tryptophan which are limiting amino acid in wheat & barley (Ref - Przybylski, R. 2009). Buckwheat having highest amount of quercetin among all the food products. Quercetin act as bioenhancer of calcium channel blocker drug Amlodipine. A replacement diet with buckwheat products exert a protective effect on the development of cardiovascular disease by reduce risk factors, including blood pressure, blood glucose, insulin lipids etc. (Ref Sofi F et al. 2016). About 100 gm of different type of buckwheat products (roti, bread, biscuit, idly) was given to the hypertensive enrolled patients. Total 126 OPD as well as IPD hypertensive patients from the Department of Medicine as per the Joint National Committee (JNC) guidelines of Hypertension (≥ 18 years) were enrolled for the study. All the patients were divided into two groups control and case. Control group (n=63) taken only amlodipine medicine whereas case group (n=63) taken buckwheat products (100 gram/day) along with amlodipine medicine. Blood pressure & pulse rate of both the group for enrolled patient was recorded at baseline, 2 week, 6 week, 12 week interval whereas lipid profile level was recorded at baseline and at the end at end of 3 months. At the end of 12 weeks; biochemical, anthropometric and clinical parameters improved in the cases as compared to control.

Recent publications

1. Nigar Naqvi . Effect of Dietary Modification for Targeting Histamine Activity in Patients of Allergic Rhinitis: A Randomised Open Label Study. Research square .2020. DOI:10.21203/rs.3.rs-25717/v1
2. Nigar Naqvi Cytokine Storm and Mucus Hypersecretion in COVID-19: Review of Mechanisms in Journal of Inflammation Research. Volume 14 ,2021. DOI <https://doi.org/10.2147/JIR.S271292>
3. Nigar Naqvi. Development And Storage Stability (Shelf Life) Of Buckwheat Biscuits in European Journal of Pharmaceutical and Medical Research, vol 8, issue 7, 2021.

Biography

Presently working as a "Consultant Dietician" in Era's Lucknow Medical College & Hospital. Published various research paper in different nation and international journal.

nigaranaqvilko@gmail.com

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Coffee restores expression of lncRNAs involved in steatosis and fibrosis in a mouse model of NAFLD

Stefania Di Mauro
University of Catania, Italy

Background and aim: Coffee intake exert protective effects against non-alcoholic fatty liver disease (NAFLD), although without fully cleared mechanisms. In this study we aimed to assess whether coffee consumption may influence the expression of long non-coding RNAs (lncRNAs) in the liver. Methods: C57BL/6J mice were fed a 12-week standard diet (SD), high-fat diet (HFD) or HFD plus decaffeinated coffee solution (HFD + coffee). Expression of specific lncRNAs involved in NAFLD was analyzed by real-time PCR. For the most differentially expressed lncRNAs, the analysis was also extended to their mRNA targets. Results: Decaffeinated coffee intake reduced body weight gain, prevented NAFLD, lowered hyperglycemia and hypercholesterolemia. NAFLD was associated with lower hepatic expression of Gm16551, a lncRNA inhibiting de novo lipogenesis, and higher expression of H19, a lncRNA promoting fibrogenesis. Coffee intake restored Gm16551 to levels observed in lean mice and downregulated gene expression of its target's acetyl coenzyme A carboxylase 1 and stearyl coenzyme A desaturase

1. Furthermore, coffee consumption markedly decreased hepatic expression of H19 and of its target gene collagen alpha-1(I) chain;

consistently, in mice fed HFD + coffee liver expression of α SMA protein returned to levels of mice fed SD. Expression of lncRNA involved in circadian clock such as fatty liver-related lncRNA 1 (FLRL1) and fatty liver-related lncRNA 2 (FLRL2) were upregulated by HFD and were also modulated by coffee intake. Conclusion. Hepatoprotective effects of coffee may be depending on the modulation of lncRNAs involved in key pathways of NAFLD onset and progression.

Recent publications

1. Scicali R, Piro S, Ferrara V, Di Mauro S, Filippello A, Scamporrino A, Romano M, Purrello F, Di Pino A.J Direct and Indirect Effects of SARS-CoV-2 Pandemic in Subjects with Familial Hypercholesterolemia: A Single Lipid-Center Real- World Evaluation. Clin Med. 2021 Sep 24;10(19):4363. Doi: 10.3390/jcm10194363.
2. Di Pino A, Scicali R, Marchisello S, Zanolì L, Ferrara V, Urbano F, Filippello A, Di Mauro S, Scamporrino A, Piro S, Castellino P, Purrello F, Rabuazzo AM High glomerular filtration rate is associated with impaired arterial stiffness and subendocardial viability ratio in prediabetic subjects. Epub 2021 Aug 13. DOI: 10.1016/j.numecd.2021.08.030.
3. Porcellati F, Di Mauro S, Mazzieri A, Scamporrino A, Filippello A, De Fano M, Fanelli CG, Purrello F, Malaguarnera R, Piro S. Glucagon as a Therapeutic Approach to Severe Hypoglycemia: After 100 Years, Is It Still the Antidote of Insulin? DOI: 10.3390/biom11091281

Biography

Stefania Di Mauro has been involved in several projects concerning metabolic diseases. He conducted both benchtop and translational research. One of her main interests has been to identify circulating noncoding RNAs in several kinds of body fluids as diagnostic biomarkers of metabolic diseases, she also focused on intracellular/tissue dysregulated noncoding RNAs involved in pivotal metabolic, inflammatory and cellular stress pathways. In the context of NAFLD she developed two differential in vitro models of NAFLD where she identified intracellular and extracellular dysregulated microRNAs involved in fundamental pathways of NAFLD progression; she also analyzed through high throughput approach the whole transcriptome expressed in NAFLD NASH and control subjects. This study led to the identification of RNA panels that may be useful for NAFLD and fibrosis staging. She has also been involved in the study of hormone secretion dysregulation of pancreatic cells and intestinal cells under lipotoxic or glucotoxicity conditions.

8stefaniadimauro6@gmail.com