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## **Buckwheat as potent antihypertensive, antihyperlipidemic and bioenhancer**

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**B**uckwheat (*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 ( $\geq 18$  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.

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