Effective oral drug delivery for the treatment of diabetes mellitus

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Diabetes mellitus is a metabolic disorder, is becoming a serious threat to mankind health. Among all types of diabetes, type 2 diabetes is main complication which can be controlled with diet, exercise and oral medications. Oral medications are not insulin pills, rather four classes of drugs designed to improve the body’s utilization of what insulin is still present. These are sulfonylurea, metformin, troglitazone and acarbose but these oral medications will not be effective when islets of pancreas stop making sufficient insulin. So we have come with a dietary supplement which can be used as a soup for management of diabetes. The composition of the supplement includes all dietary ingredients such as wheat flour commonly known as bread wheat, barley powder, guar gum it’s a polysaccharide of galactose and mannose, which is water soluble polymer, exhibits a viscosifying effect in water, onion powder commonly known as bulb onion, which contains quercetin, allicin, allinin and salt as required and turmeric powder that are harmless when given to patients. Our preliminary in vitro studies suggested good activity in modifying glucose absorption from the gut and we also carried out a prospective observational pilot study, to study the effect of dietary supplement on glycemic control in pre-diabetes (PD) and mildly uncontrolled diabetics (MUCD) and the results have shown that the dietary supplementation could be an adjuvant therapy which is safe, healthy and economic alternative for DM patients to control blood glucose levels and also that can minimize even the dose of OHAs.

Biography
Nayanabhirama Udupa was at Manipal University as Professor and Head of the institution, Manipal College of Pharmaceutical Sciences for couple of tenures since his joining as Professor from 1987. He has published more than 510 papers peer reviewed journals, presented 411 papers in different conferences throughout the world, contributed 12 books in pharmacy field and gave more than 125 lectures. He has received more than 57 research grants having 9 patents. He has guided 36 PhD candidates and 80 M pharm students for the completion of their thesis.

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