

Could food be our medicine? ✓

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Abstract:

Introduction: Non communicable diseases are becoming an alarming threat to humans at present. The high prevalence of diabetes mellitus in Asia is a challenge to health care professionals. With numerous limitations attributed to existing allopathic drugs, more attention is being paid to introduce functional foods which exert beneficial health effects. A few studies were conducted with the aim of identifying suitable functional foods that can be popularized among the community. The hypoglycaemic effects of the hot water extract of dried flowers of *Aegle marmelos* and the culinary mushrooms: American oyster (*Pleurotus ostreatus*) and abalone (*P. cystidiosus*) in Type II diabetic patients on diet control were studied. **Methodology:** The study was conducted at the Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka. Following ethical clearance, ninety, volunteer patients were recruited (n=30/group). A glucose challenge test was performed on Day 1 and the concentration of serum glucose and insulin were measured. Same procedure was repeated on a subsequent day where patients received a single dose of respective extracts ½h prior to glucose and serum glucose and insulin were measured. The extracts were given daily for 2 weeks and liver enzymes and creatinine levels were measured. **Results:** Consumption of *A. marmelos*, *P. autreatus* and *P. cystidiosus* extracts significantly reduced ($p<0.05$) the concentrations of fasting as well as 2h serum glucose in the teste subjects. The serum insulin concnetrations were significantly increased ($p<0.05$) following treatment. The serum concentrations of liver enzymes and creatinine were not affected. **Discussion:** The drink of *A. marmelos* is a very popular beverage in Sri Lanka. The findings validate its use as a functional food which can be safely consumed daily. Similarly the study confirms that the American oyster and abalone mushrooms which are consumed fresh as well as dried, are capable of improving glucose tolerance in diabetic patients.