

The effect of fortification of wood ear mushroom powder (*Auricularia* sp.) in instant noodles on the postprandial blood glucose level in human subjects

ABSTRACT

The aim of this study was to evaluate the effect of instant noodles fortified with wood ear mushroom (*Auricularia* sp.) on the postprandial blood glucose level in human subjects. A total of 21 participants had volunteered but only 10 female respondents aged range 23–31 years old and have a normal body mass index with a median of 21.04 kg/m² were selected to participate in the glycaemic analysis study. They were served with control instant noodles, fortified instant noodles with wood ear mushroom powder, and three glucose solutions which all contained a total of 50 g of available carbohydrates in 5 different sessions randomly. The postprandial blood glucose level within two hours indicated a significant difference ($P < 0.05$) between the mean of control and fortified instant noodles at 30 minutes (the peak) and 120 minutes. The mean of incremental area under the curve (IAUC) of reference food was the highest at 269.83 mmol.min/L while the mean of IAUC of the test food was 196.43 mmol.min/L and 179.78 mmol.min/L for control and fortified noodles respectively. There was a significant difference ($P < 0.05$) in the mean of IAUC between reference and test food. The value of glycaemic index value of the control instant noodles was 75.84 (high) while the fortified instant noodles was 68.91 (medium). In conclusion, the instant noodles fortified with wood ear mushroom (*Auricularia* sp.) powder is effective and could be used as a potential functional ingredient for glycaemic contro