

Antihyperglycemic activity of *F. deltoidea* ethanolic extract in normal rats.

ABSTRACT

Ficus deltoidea is one of the common medicinal plants used in Malaysia. This epiphytic plant, from the Moraceae family has been claimed to have antidiabetic property. However, scientific evidence to confirm its efficacy is still lacking. The present study was undertaken to evaluate the effect of ethanolic extract of *F. deltoidea* on glucose level in normal rats at different prandial state. The results showed that, all doses of ethanolic extract of *F. deltoidea* reduced fasting blood glucose particularly after 6 h of administration. Interestingly, the extract did not produce severe hypoglycemia as shown by its comparable effect with metformin. Likewise, postprandial hyperglycemia was also significantly reduced particularly after 4 and 6 h of administration. Furthermore, extract was used at a dose of 1000 mg/kg b.w., reduced postprandial hyperglycemia similar to metformin. This suggests that postprandial antihyperglycemic mechanism of this extract is mediated through enhancement of glucose uptake into muscle cells and reduction of hepatic gluconeogenesis. Glucose tolerance activity was also significantly improved in the presence of ethanolic extract of *F. deltoidea*. From this study, it is suggested that ethanolic extract of *F. deltoidea* reduced postprandial hyperglycemia and improves glucose tolerance activity in normal rats.

Keyword: *F. deltoidea*; Glucose tolerance activity; Postprandial antihyperglycemia.