

당뇨 유발 백서에서 천마 추출물의 혈당감소 효과
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Hypoglycemic effect of *Gastrodia elata* aqueous extract in
STZ-induced diabetic rat

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Objectives

The antidiabetic effect of *Gastrodia elata* extract was investigated in normal and streptozotocin-induced diabetic rats.

Materials

Gastrodia elata, Female Sprague-Dawley 50 rats

Methods

- Sprague-Dawley rats
- Blood glucose, serum insulin
- Serum analysis(ALP, AST, TC, HDL, TG)
- Hematoxylin and Eosin stain

Results and Discussion

In the present study, oral administration of *Gastrodia elata* extract (100, 250 and 500 g/kg body weight) for 28 days on the level of serum glucose, total cholesterol, triglycerides, HDL-cholesterol, aspartate amino transferase (AST) and alanine amino transferase (ALT) in normal and streptozotocin-induced diabetic rats were evaluated and histological finding(H&E stain, PAS stain).

Oral administrations of the *Gastrodia elata* significantly decreased serum glucose, total cholesterol, triglycerides, aspartate amino transferase (AST) and alanine amino transferase (ALT) levels. It is concluded that the *Gastrodia elata* must be considered as beneficial candidate for future studies on diabetes mellitus. Histopathological studies of liver and kidney shown decrease in the intensity and incidence of vacuolizations, cellular infiltration and hypertrophy of STZ-induced diabetic rats.

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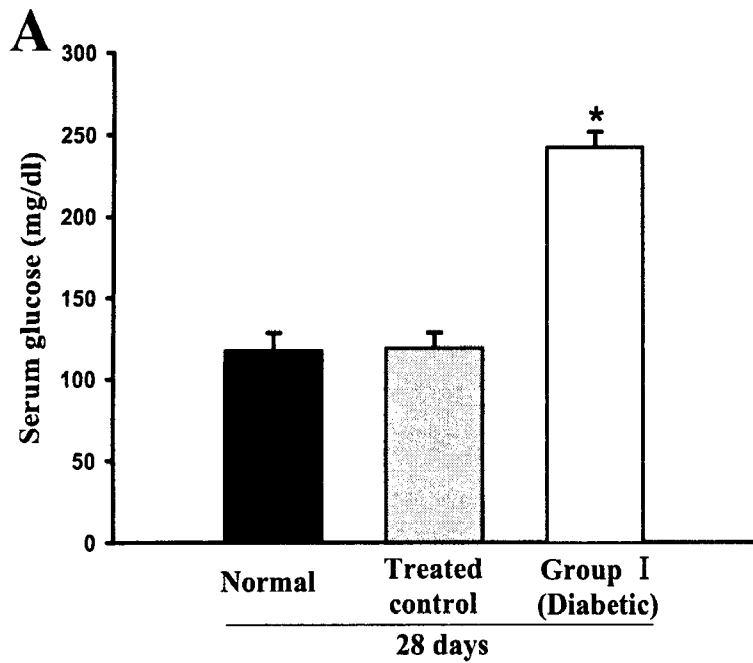


Fig. 1. Effect of serum glucose on oral administration of *gastrodia elata* at doses of 100, 250 and 500mg/kg body weight in control groups.

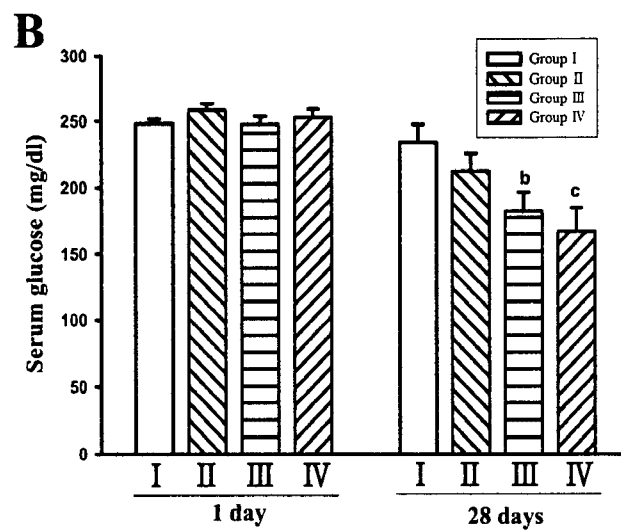


Fig. 2. Effect of serum glucose on oral administration of *gastrodia elata* at doses of 100, 250 and 500mg/kg body weight in experimental groups.