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**Fatty acid binding protein(FABP) expression in the liver and adipose tissue of diet-induced obese rats fed high fat diet and *Rahmannia glutinosa* extracts**

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Cytosolic fatty acid binding proteins(FABP) are 14-15kDa proteins are abundantly expressed in a highly tissue specific manner. The principal function of FABP are intracellular transport and storage of long chain fatty acids, and their expression is modulated by developmental, hormonal, dietary, and pharmacological factors.

*Rahmannia glutinosa* is an oriental traditional herb known to improve insulin resistance and lipid profile in diet induced obese rats.

We investigated the effect of *Rahmannia glutinosa* aqueous extract on FABP expression in the liver and epididymal adipose tissue of diet induced obese rats fed high fat diet.

For this purpose, 80 Spraque Dawley rats weighing 439.03±7.61g were divided into two groups and fed either a normal control diet or a 30% lard containing high fat diet for 7 weeks. And *Rahmannia glutinosa* aqueous extracts were orally administrated at the dose of 150 mg/day each rat. The changes of mean body weight, food intake were measured each weeks and serum total cholesterol, triglycerol, HDL-cholesterol, free fatty acid concentrations were measured at 0, 2, 4, 7 weeks. At the end of the experimental period, liver and epididymal adipose tissues adipose tissue were isolated and weighed. Liver and epididymal adipose tissue FABP expression were determined by RT-PCR method.

In this experiment, aqueous extract of *Rahmannia glutinosa* significantly reduced serum lipid profiles(total cholesterol, triglycerol, HDL-cholesterol, free fatty acid concentrations) as well as body weights and adipose tissue weights.

High fat feeding increased FABP mRNA expression in liver and epididymal adipose tissue. Administration of an aqueous extracts of *Rahmannia glutinosa* decreased liver and and epididymal adipose tissue FABP expression.