

The study of aqueous extract of *Ficus religiosa* Linn. on cytokine TNF-alpha in type 2 diabetic rats

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ABSTRACT

Background Chronic systemic inflammation is an early process in pathogenesis of type 2 diabetes. Hence the present study was aimed to investigate the effect of traditionally known plant *Ficus religiosa* on elevated glucose and inflammatory marker namely tumor necrosis factor (TNF)-alpha in type 2 diabetic rats. **Methods** Type 2 diabetes was induced by administering streptozotocin (90 mg/kg, i.p.) in neonatal rat model. Aqueous extract of *F. religiosa* at a dose of 100 and 200 mg/ kg was given orally to desired group of animals for a period of 4 weeks. After 4 weeks of drug treatment, parameters such as fasting blood glucose, postprandial blood glucose and TNF-alpha in serum were analyzed. **Results** Aqueous extract of *F. religiosa* at both dose levels i.e., 100 and 200 mg/kg decreased the elevated glucose and TNF-alpha in type 2 diabetic rats. The extract at 200 mg/kg had more pronounced effect. **Conclusion** Modulation of cytokine TNF-alpha by the aqueous extract of *F. religiosa* indicates that the anti-inflammatory and immunomodulatory property of the plant is related with its potential anti-diabetic activity.

KEYWORDS

Ficus religiosa . inflammation . TNF-alpha . type 2 diabetes

REFERENCES