

Deb L, Bhattacharjee C, Shetty SR, Dutta A. Evaluation of anti-diabetic potential of the *Syzygium cuminii* (linn) skeels by reverse pharmacological approaches. *Bull. Pharm. Res.* 2013;3(3):135-45.

Abstract: Oral administration of 50 and 100 mg/kg of the aqueous and methanol extracts of roots, leaves, seeds and barks of *Syzygium cuminii* in alloxan monohydrate (150 mg/kg *i.p.*) induced diabetic male Sprague Dawley (SD) rats, for 21 days resulted in a statistically significant (P variation 0.05 to 0.001) reduction in blood glucose level and biochemical parameters in dose dependent manner. They also prevented decrease in body weight. Oral administration of 100 and 200 mg/kg aqueous extract of leaves (AL) in the oral glucose tolerance test on streptozotocin (STZ 75 mg/kg *i.p.*) induced diabetes, in experimental diabetes induced by alloxan (150 mg/kg *i.p.*) and streptozotocin (70 mg/kg *i.p.*) resulted in a significant (P < 0.001) hypoglycemic activity. The safety profiles of extracts confirmed by acute toxicity study on mice and sub-chronic toxicity of AL extract on male rats. On the basis of these investigations, we may partially conclude that the *S. cuminii* leaves could be a potent anti-diabetic agent.

Key words: *Syzygium cuminii*, Streptozotocin, Sub-chronic toxicity, Antidiabetic, Alloxan.

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