ABSTRACT

Efficacy of Keren Fruit (Muntingia Calabura) In Reduction of Blood Glucose Level in Diabetic Mice (Mus Musculus)

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Objective: The aim of this experiment is to evaluate the efficacy of Muntingia Calabura in decreasing blood glucose level in diabetic mice.

Materials and Methods: Mice were induced with multiple low dose streptozotocin (40mg/kg) in 5 consecutive days by intraperitoneal injection. After 7 days of adaptation, Muntingia Calabura was given in 2.8 mg/20gBB and 5.6 mg/20gBB for 14 days. Administration of Muntingia calabura was compared with metformin 2 mg/20gBB. Blood samples were collected in day 0 and 14 to evaluate pre and post blood glucose level.

Result: Administration of 5.6 mg/20gBB Muntingia calabura and metformin 2 mg/20gBB significantly reduce blood glucose level of diabetic mice. But, administration of 2.8 mg/20gBB Muntingia calabura does not significantly reduce blood glucose of diabetic mice. Muntingia calabura 5.6 mg/20gBB has 82.1% effectivity to reduce blood glucose level, lower than metformin 2 mg/20gBB that has 82.3%

Conclusion: The administration of 5.6 mg/gBB Muntingia calabura has proven to be effective to reduce blood glucose level in diabetic mice but metformin 2 mg/20gBB is more effective.

Keyword: Muntingia Calabura, Mus Musculus, Metformin, Diabetes Melitus, Streptozotocin