HISTOPATHOLOGICAL FEATURE OF PANCREAS AND BLOOD GLUCOSE LEVEL OF DIABETIC MICE TREATED BY NON-POLISACHARIDE FRACTION OF AQUEOUS EXTRACT OF *Cynodon dactylon*

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ABSTRACT

This study was undertaken to investigate the hypoglicemic and antidiabetic effect of repeated oral administration of the non-polisacharide fraction of aqueous extract of *Cynodon dactylon* (NPF-CD) in STZ (streptozotocin) induced diabetic mice. STZ multiple low doses were intraperitonally administrered 40 mg/kgBW for five days. A total of twenty five male BALB-C mice of two months old were used in this study. The mice were divided into five groups: (1) negative control group (K0), that were diabetic and treated solvent aquades and tween80, (2) positive control group (K1), that were diabetic and treated metformin as a standart drug, (3) NPF-CD 250 mg/kgBW (P1), (4) NPF-CD 500 mg/kgBW (P2), (5) NPF-CD 1000 mg/kgBW (P3). The treatment was conducted for 14 days. Hypoglicemic effect of NPF-CD of all mice was determined at 6 and 14 days post treatment. At the end of experiment, all of mice were eutanized and the pancreas were collect by abdominal section for analysis of quantity cells in Langerhans pancreatic islet. The result of this study showed that non-polysacharide fraction of aqueous extract of *Cynodon dactylon* has high antidiabetic potential at decreased blood glucose and increased quantity of cell in Langerhans pancreatic islet. Comparatively, the NPF-CD was found to be more effective than the metformin as a standart drug.

Keywords: Antidiabetic activity, Hypoglicemic activity, beta cell, Streptozotocin, Non-Polisacharide Fraction of *Cynodon dactylon*,