

Antihyperglycemic and antioxidant activities of active fraction from the aqueous extract of *Momordica cymbalaria* fruits in Streptozotocin induced diabetic rats

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ABSTRACT

The methanolic supernatant fraction (MSF) of the aqueous extract of *Momordica cymbalaria* fruits when given to streptozotocin (STZ) induced diabetic rats showed a significant reduction (65.9%, $P < 0.001$) in fasting blood glucose levels at a dose of 0.5g/ kg.b.w. These results were compared to that of glibenclamide, an oral hypoglycemic agent. The active MSF exhibited a dose dependent scavenging activity against 2, 2-diphenyl-1-picrylhydrazyl (DPPH) radicals and nitric oxide radicals with an IC₅₀ value of 42.5 and 157.2µg/ml, respectively. Further, the MSF had relatively lower reducing power, compared to that of ascorbic acid. The total phenolic content of the fraction was found to be 132mg/gm of dry fraction. In conclusion, MSF possess antihyperglycemic and antioxidant properties, which could be due to the presence of steroidal glycosides or phenolic compounds.

KEYWORDS

Antihyperglycemic . Antioxidant . Diabetes mellitus . *Momordica cymbalaria* . Streptozotocin

REFERENCES

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