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## DIABETES AND HEALTHCARE

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## *Mentha suaveolens* Ehrh improves hypergycemia, oxidative stress, pancreas and liver dysfunction in streptozotocin-induced diabetic rats

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entha suaveolens Ehrh is an aromatic and medicinal plant from Lamiacea family. This plant has many food and medicinal uses including diabetes management. The present work aimed to evaluate the antidiabetic and the plasma lipid profile of the aqueous extract of aerial part of Mentha suaveolens Ehrh (AEAPMS). Blood glucose and plasma lipid levels were followed after single and repeated (15 days of treatment) AEAPMS (20 mg/Kg) oral administration in normal and streptozotocin-induced diabetic rats. Oral glucose tolerance test (OGTT) was also conducted. Furthermore, preliminary phytochemical screening, quantification of phenolic and flavonoid contents as well as histopathological examination of pancreas and liver were carried out. The results showed that the extract exhibited a significant glucose and lipid (Total cholesterol and triglycerides) lowering activity in both normal

and diabetic rats. In addition, an important influence on glucose tolerance was also noticed after AEAPMS treatment. Moreover, AEAPMS seems to act positively on histopathological tissues of liver and pancreas. On another hand, a potential in vitro antioxidant of AEAPMS has been shown while no significant effect was observed on serum lipoproteins (HDL and LDL). In conclusion, the study demonstrates that AEAPMS possesses a beneficial effect on glucose and lipid metabolism. This effect might be mediated through the amelioration of glucose tolerance as well as the liver and pancreas function. Finally, the main phytochemical constituents of Mentha suaveolens are alkaloids, polyphenols, flavonoids, cyanidins, tannins, glucosides, saponins, quinones, anthraquinones, mucilage, sterols, sesquiterpenes, reducing sugars, carbohydrates and terpenoids.

## Biography

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