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# EVALUATION OF ANTIDIABETIC AND ANTIHYPERTENSIVE POTENTIAL OF SOME TRADITIONAL DESERT FOOD PLANTS OF QATAR USING IN VITRO ASSAYS

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Numerous studies have shown that food plants, the source of basic nutritional components may also possess an additional bioactive therapeutic properties associated with the prevention of diseases such as type 2 diabetes and its related complication, hypertension. The incidence of type 2 diabetes in Qatar is one of the highest in the world. In the present study, four edible plants from Qatar were selected to analyze the phenolic bioactives and their potential health benefits with relevance to managing type 2 diabetes and hypertension using in vitro enzyme assays. High antioxidant activity along with high total soluble phenolics associated with high in vitro enzyme inhibitory  $\alpha$ -glucosidase, moderate  $\alpha$ -amylase and ACE inhibitory effects was shown by aqueous extracts of *Cynmorium coccineum*. *Malva parviflora* and *Glossonema edule* had moderate antioxidant potential, total soluble phenolics and ACE inhibitory potential. Edible plants like *Cynmorium coccineum* that is also suggested to possess other medicinal properties has a high potential for diet-based solutions in combating, preventing and managing early stage of type 2 diabetes coupled to overall healthy life style and pharmacological management strategies. This study provides the biochemical rationale for further animal and clinical studies to understand the health benefits of edible plants of Qatar as dietary strategies for chronic disease management.

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