

عنوان مقاله:

The Inhibitory Effect of Some Iranian Plants Extracts on the Alpha Glucosidase

محل انتشار:

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خلاصه مقاله:

Objective Diabetes mellitus is manifested by hyperglycaemia. Different treatments such as diets and drugs are recommended for diabetes control. For various reasons in recent years traditional plant (herbal) therapies as prescribed by indigenous systems of medicine with different mechanisms have commonly been used. The digestive enzymes such as alpha glucosidase are among these herbal remedies. Materials and Methods One hundred species of plants were collected or purchased from the Medicinal Herbal Markets and botanically identified. Methanolic and aqueous extracts were prepared by the maceration method. The enzymatic activities of alpha glucosidase were determined colorimetrically by monitoring the release of p-nitrophenol from the appropriate p-nitrophenol glycoside substrate, after 30 mins incubation at 37 °C in the phosphate buffer (pH= 6.8). Results Among 200 prepared extracts, *Verbascum kermanensis*, *Rosa damascene*, *Rosmarinus officinalis*, *Levisticum officinale*, *Zataria multiflora*, *Sanguisorba minor*, *Alhagi camelorum*, *Pistacia vera*, *Vaccinium arcto-staphylus*, *Zhumeria majdae*, *Alpinia officinarum*, *Salvadora persica*, and *Thymus serpyllum* showed more than 50% inhibitory effect on the alpha glucosidase. Conclusion These active plants have no records in the literature for their anti diabetic effect and might be the new agents for diabetes control. This needs further in vitro and in vivo studies, some of which are under investigation

کلمات کلیدی:

Alpha glucosidase, Diabetes, Herbals, Hyperglycemia, Inhibitors, Plant

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