

3.31. *Nigella sativa*

In the study on anti-diabetic activity of *Nigella sativa* the seed of *nigella sativa*, oral administration of this plant capsules (the at a dose of 2gr/day) significantly reduced the-FBG, 2 HPG, and HBA1 activities without changing the bodies-body weight of the subjects. The results of this study confirmed that applied doses are can be used as an adjuvant therapy in type 2 diabetic people (54).

3.32. *Ocimum sanctum*

The leaves of this plant are traditionally used in treating diabetes. Consuming doses of *Ocimum sanctum* (OS) leaf at 2 gr/kg for 30 days in the group of albino rabbits treated with *Ocimum sanctum* leaf caused a sharp reduction in glucose level and the level of antioxidant enzymes and glutathione increased, while the lipid peroxidation decreased by using the plant leaf. For this reason, they-the related hypoglycemic activity of the plant is believed to be related to the adjustment of the cellular antioxidant system (55). In another study, the ethanolic extract of the OS leaves of OS caused a significant reduction in blood glucose levels in normal and alloxan-induced diabetic rats (56).

3.33. *Origanium vulgare*

Oral administration of aqueous extract of the leaves of this plant leaves (20mg/kg), in comparison with the standard drug glibenclamid (0.9 mg/kg/BW), caused a significant reduction in glucose level, glycosylated hemoglobin, and pancreatic amylase in STZ diabetic rats. The use of the extract in treatment Treatment with the extract decreased the liver/body weight ratio in diabetic rats, while the ratio of the kidney/body weight, the level of urea, uric acid, and creatinine improved slightly. Oral administration of at the mentioned doses modified the reduction of body insulin, muscle, liver glycogen content, and body weight in STZ diabetic rates (57).

3.34. *Phyllanthus amarus*

Phyllanthus amarus *Phyllanthus amarus* is a medicinal plant known as a hypoglycemic factor in central and southern India. Oral administration of ethanolic extract from the leaves (400 mg/kg/BW) for 45 days caused a significant reduction in blood glucose levels in alloxan-induced diabetic mice and it led to a significant improvement in the body's weight in diabetic mice. Also, there was a reduction in the activities of glucose-6-phosphatase and fructose 1, 6 di phosphatase activities in the liver. The glucokinase activity, in comparison with control group, increased during treatment in the liver of the diabetic rats (58).

3.35. *Salacia reticulata*

The aqueous extract's effects of *Salacia reticulata* aqueous extract this plant leaves on the glucose absorption were examined in normal type 1 diabetic mice. Simultaneous oral administration of the extract (1mg/kg) with maltose or sucrose has lead to increased the levels of plasma glucose after a meal (postprandial), and inhibited insulin and intestinal alpha glycosidase activities in the mice. Also, a 0.01 solution of the extract given as drinking water prevented from an increasing-increase in insulin glucose levels and intestinal alpha glycosidase activities in type 1 diabetic mice. This treatment helped prevent the-an increase of lipid peroxidation in the plasma, pancreas, and kidney and it prevented from a the decrease in plasmas insulin level and the-an increase in aldose reductase activity in kidney (59).

3.36. *Prangos ferulacea* (L.) Lindl.

This plant is used in traditional medicine to relieve pain, inflammation, and help treat diabetes. The major components of this extracts from this plant essence are monoterpenes compounds. The presence of monoterpenes, sesquiterpenes, coumarins, flavonoids, tannins, saponins, alkaloids, terpenoids, and antioxidants are factors of in the antioxidant, anti-diabetic, anti-microbial, anti-viral, and antispasmodic properties (60). In the-a study onf this plant the properties of this plant, it was found that, in diabetic rats, the-a dose of 100mg/kg of the hydro-alcoholic extract of this plant root in diabetic rats causes a significant reduction in blood glucose levels, total cholesterol, triglyceride, LDL, glycosylated hemoglobin, and a significant increase in HDL levels, and in addition, it adjusts

www.medical-researchers.com