

Effect of Nigella Sativa Seeds and Ajwa Date on Blood Glucose Level in Saudi Patients with Type 2 Diabetes Mellitus

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Abstract : Background: Diabetes is a medical condition that refers to the pancreas' inability to secrete sufficient insulin levels, a hormone responsible for controlling glucose levels in the body. Any surplus glucose in the blood stream is excreted through the urinary system. Insulin resistance in blood cells can also cause this condition despite the fact that the pancreas is producing the required amount of insulin. A number of researchers claim that the prevalence of diabetes in Saudi Arabia has reached epidemic proportions, although one study did observe one positive in the rise in the awareness of diabetes, possibly indicative of Saudi Arabia's improving healthcare system. While a number of factors can cause diabetes, the ever-increasing incidence of the disease in Saudi Arabia has been blamed primarily on low levels of physical activity and high levels of obesity. Objectives: The project has two aims. The first aim of the project is to investigate the regulatory effects of consumption of Nigella seeds and Ajwah dates on blood glucose levels in diabetic patients with type 2 diabetes. The second aim of the project is to investigate whether these dietary factors may have potentially beneficial effects in controlling the complications that associated with type 2 diabetes. Methods: This use a random-cross intervention trail of 75 Saudi male and female with type 2 diabetes in Al-Noor hospital in Makkah (KSA) aged between 18 and 70 years were divided into 3 groups. Group 1 will consume 2g of Nigella Sativa seeds daily along with a modified diet for 12 weeks, group 2 will be given Ajwah dates daily with a modified diet for 12 weeks and group 3 will follow a modified diet for 12 weeks. Anthropometric measurements were taken at baseline, along with bloods for HbA1c, fasting blood sugar and at the end of 12 weeks. Results: This study found significant decrease in blood level (FBG & 2PPBG) and HbA1c in the groups with diet and Nigella seeds) compared to Ajwa date. However, there is no significant change were found in HbA1c, FBG and 2hrpp regarding Ajwa group. Conclusion: This study illustrated a significant improvement in some markers of glycaemia following 2 g of Ns and diet for 12 weeks. The dose of 2g/day of consumed Nigella seeds was found to be more effective in controlling BGL and HbA1c than control and Ajwa groups. This suggests that Nigella seeds and following a diet may have a potential effect (a role in controlling outcomes for type 2 diabetes and controlling the disease). Further research is needed on a large scale to determine the optimum dose and duration of Nigella and Ajwa in order to achieve the desired results.

Keywords : type 2 diabetes, Nigella seeds, Ajwa dates, fasting blood glucose, control

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