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SOME SUBSTANCES WHICH MAY ACT LIKE BETA PANCREATIC CELLS WITH SOME TRIALS ON EDUCATIONAL TECHNOLOGY

A Thesis Presented
By

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(PHYSIOLOGY)

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ABSTRACT

The present study was performed to study the physiological effects of alpha lipoic acid, vanadyl acetylacetonate and nigella sativa in diabetic rats .A total of 110 mature male sprague-dawley rats were randomly allocated into 5 groups: control , untreated diabetic, alpha lipoic acid , vanadyl acetylacetonate and nigella sativa. After 2,4 and 6 weeks from onset of diabetes, serum and plasma samples were obtained for estimation of fasting blood glucose, lipid profile , liver and kidney functions . Histopathological samples were taken from liver, kidney and pancreas. Administration of alpha lipoic acid, vanadyl acetylacetonate and nigella sativa to diabetic rats resulted in a significant decrease ($P<0.05$) in blood glucose and lipid profile and improvement in liver and kidney functions when compared to untreated diabetic rats. The histopathological findings in liver, kidney and pancreas of treated groups showed improvement when compared with those of diabetic group. The results of this study indicate that the alpha lipoic acid, vanadyl acetylacetonate and nigella sativa possess hypoglycemic, hypolipidemic, improvement effects on kidney and liver functions and protective effects on beta cells of pancreas in streptozotocin induced diabetic rats.

Key words: Diabetes , Alpha lipoic acid, Vanadyl acetylacetonate, Nigella sativa, Liver, Kidney, Pancreas.

أهداء

"الى زوجتي الحبيبه و أبنتي نورين

ووالدي ووالدتي العزيزه

وجميع اخوتي"

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