(3) Balasubramaniam K, Vasanthy Arasaratnam, Nagaswaran A, Anushiyanthan S, Mugunthan N (1992) STUDIES ON THE EFFECT OF *GYMNEMA SYLVESTRE* ON DIABETICS. J: Natn, Srilanka, 20(1): 81-89

Abstract: Gymnema sylvestre (T. Sirukurincha) is used in indigenous medicine for control of glycosuria. In this work the hypoglycaemic effect of G. sylvestre was studied in between 43 and 68 years of age. All the subjects were administered with G. sylvestre leaf powder (10 g/day)for 7 days. Oral glucose tolerance test was performed on all subjects before the administration of G. sylvestre leaf powder. Normal subjects had the zero and 2 hour blood glucose levels of 80.8 (+ 11.9) mg dl and 72.6 (+14.4) mg respectively, while 43 mild diabetics had 152.7 (+ 28.5) mg dl and 240.0 (+22.5 mg dl . From 7^{th} day, 36 mild diabetics were treated with tolbutamide for one week as prescribed by their doctors, while the remaining 7 diabetics continued the intake of G. sylvestre leaf powder for another two weeks. Fasting blood glucose levels of normals, 36 diabetics on G. sylvestre and on tolbutamide , and 7 diabetics who continued on G. sylvestre leaf powder, were measured on zero, and 7^{th} days; on zero, 7^{th} and 14^{th} days and on zero, 11^{th} an 24 days respectively. The mean fasting blood glucose levels on the 7^{th} day for normals and mild diabetics were 71.6 (+ 12.9) mg dl and 136.6 (+20.3) mg dl respectively. The mean fasting blood glucose levels of both normals and diabetics had significantly decreased 7 days after the administration of G. sylvesre leaf powder. Fasting blood glucose levels of the 36 diabetics on tolbutamide . Fasting blood glucose levels of the 36 diabetics on tolbutamide for 7 days (on 14^{th} day of commencement of the experiment) was 131.1(- 15.1) mg dl. Mean fasting vlood glucose levels of 36 diabetics on 7^{th} day (136.3=20.3 mg dl) and 14^{th} day (131.1=15.1mg dl) showed no significant difference. Fasting blood glucose levels of 7 diabetics who took g, Sylvestre leaf powder for 3weeks showed improved glucose tolerance on probably had a hypoglycaemic effect comparable to tolbutamide. Serum triglyceride, free fatty acids and cholesterol levels of the normals were unaffected by the intake of G.sylvestre leaf powder for one week, whereas that of diabetics had significantly decreased. Serum ascorbic acid and iron levels of normals and diabetics were elevated significantly due to the intake of G.sylvester had not affected the exertion of creatine in normals wheres in in diabetics it had decreased the excertion of creatine. SGOT and SGPT levels of normals and diabetics, before and after the administration of G.sylvestre , were not significantly different.