EFFECTS OF GLICLAZIDE AND GLIBENGLAMIDE ON GLYGEMIG CONTROL AND PLATELET ADHESIVENESS IN DIABETES

AHMAD, J.; KUMAR S.; SINGHAL, A.; AND SINGHAL, K. C.

Endocrinolgy and Metabolic Section, Department of Medicine, J. N. Medical Collage, Aligarh Muslim University, Aligarh, U. P., India.

Platelet aggregation and adhesion are commonly increased in diabetics and may in part be responsible for the increase incidence of vascular disease. We have investigated the effects of diet, diet plus gliclazide and diet plus glibenclamide on blood glucose control and platelet adhesiveness into two groups of twenty cases each of newly diagnosed Non-insulin dependent diabetics who had not been previously treated. Before treatment, the mean fasting, post prandial blood glucose, HbA1C and platelet adhesiveness values were 192.8±28.46 mg/dl, 285 75+40.84 mg/dl 15.82±2.81% and 26.09±3.697% selected for gliclazide therapy and 165.5 + 42.29 mg/dl, 211.65±63.87 mg/dl, 11.71 ±1.68% and 25.45±5.23% selected for glibenclamide therapy respectively. Bath gliclazide and glibenclamide when added to the diet significantly lowered mean fasting and post prandial blood glucose values to 90.1± 13.34 mg/dl, 123.1+9.49'mg/dl and 95.9±14 82 mg/dl, 121.6 + 7.41 mg/dl, HbA1C to 8.095 + 1.08% and 7.79±0.65%, and platelet adhesiveness to 19.03±3.72% and 23.36± 5.17% respectively (PZ. 0.01) after 8 weeks of maintenance therapy. There was no significant change in the weight of the patients throughout the treatment periods. The mean daily dose of gliclazide at the end of the period was 120mg/ day (range 80 to 240 mg), while the mean daily dose of glibenclamide was 7.5 mg/day (range 5 to 15mg). There was no correlation between the fall in blood glucose level and change in plated adhesiveness. In terms of glycemic control, gliclazide was found to be slightly but significantly better than glibenclamide P/.0 05) and appear to have a greater effect on platelet adhesiveness (PZ. 0.001) during the period studied glibenclamide. This may play an important role in the prevention of vascular disease.