

ABSTRACT

GLYCAEMIC CONTROL, CARDIOVASCULAR AND RENAL RISK
IN ADULTS WITH DIABETES MELLITUS

ANN-TENNEIL O'CONNOR

Objectives: To evaluate glycaemic control, oxidative stress, serum lipid levels, microalbumin excretion, blood pressure and anthropometry in adults attending a specialist diabetes clinic

Methods: A random sample of 133 patients men (n=35) and women (n=98), with diabetes mellitus was selected from a population of 510 patients. Height, weight, blood pressure, waist and hip circumferences were measured. Urine (n=124) and fasting blood samples (n=122) were obtained. The data were analysed using SPSS versions 7.5, 10.0 & 11.0.

Results: Mean age was 56.7 ± 14.3 years, with mean duration of diabetes: 12.2 years. Mean fasting blood sugar was 8.6 ± 4.3 mmol/L. Seventy-seven % had HbA1c $\geq 6.5\%$. Sixty nine % were being treated with insulin and there was no difference in HbA1c levels in these patients compared to those receiving other hypoglycaemic agents. Fifty-four % had total cholesterol levels ≥ 5.2 mmol/L, 16% triglyceride levels ≥ 1.5 mmol/L, 25% HDL levels ≤ 1.0 mmol/L and 86% LDL ≥ 2.5 mmol/L. Twelve % reported being on "statins". Sixty three % had BP $>130/85$ mm Hg. Eighty-one % were overweight or obese, with 80% of the men having waist circumferences >88 cm, whereas 87% of the women had waist circumferences >84.5 cm. Microalbumin excretion was elevated in 37% of the subjects. Mean isoprostane level was 1915.6 ± 2041.5 pg/mg creatinine.

Conclusions: A high proportion of patients have poor glycaemic control. The high proportion of overweight, obesity, central obesity, elevated LDL and hypertension in these patients indicates high cardiovascular and renal risk.