Optimizing Blood Glucose Control in Type 2 Diabetes: an Approach Based on Fasting Blood Glucose Measurements

RR Holman, RC Turner

Diabetic Medicine 1988; 5: 582-588

A structured approach to the management of Type 2 diabetes, aiming to reduce fasting blood glucose levels to near-normal, can provide effective blood glucose control with minimal risk of hypoglycaemia and in a manner acceptable to most patients. When the fasting glucose value is maintained in the region of 4–6 mmol l^{-1} , protein glycosylation and plasma triglyceride values usually become near-normal and this may help to prevent the development of long-term diabetic complications. We propose a simple management strategy, based on 3-monthly fasting blood glucose determinations, which uses not more than two therapeutic agents at any one time. If diet and maximal oral therapy fail to keep fasting blood glucose levels below 6 mmol I^{-1} then the addition of a basal insulin supplement, e.g. from a once daily injection of ultralente insulin, can restore near-normal fasting blood glucose levels without the need for full insulin replacement therapy. In older patients, where long-term prevention of diabetic complications is not such an immediate priority, less strict blood glucose control may be reasonable, aiming to keep the fasting blood glucose values below 10 mmol l⁻¹ in order to prevent symptoms secondary to glycosuria. Patients can be seen at a monthly general practice morning diabetic mini-clinic or with the aid of a nurse visiting elderly patients at home.