

A New Approach to the Treatment of Mild Diabetes

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Normal subjects produce most insulin after meals and one usually assumes that is when diabetics primarily need insulin replacement therapy. However, the predominant abnormality in diabetes is a raised basal plasma glucose. A basal insulin supplement, which lowers the basal plasma glucose to normal, is the logical initial therapy.

Eleven normal weight and seven obese diabetic patients, fasting plasma glucose 6-14 mmol/l, have been treated for 10 weeks with Ultralente insulin. The decrease in the basal plasma glucose to increasing doses was approximately linear. The required dose was proportional to the degree of pre-treatment basal hyperglycaemia, and to insulin resistance determined from the basal plasma insulin concentration. Normal plasma glucose concentrations were obtained during the night without hypoglycaemia, and satisfactory control was obtained during the day. Plasma triglyceride levels were also decreased.

A basal insulin supplement, given as a very long-acting insulin, provides simple and effective means of improving control in mild diabetic patients, and may be indicated in those who were at risk from complications.

If control is achieved with basal supplements alone, there is little risk of hypoglycaemia, and no need for a rigid diet.