Treatment of a Diabetic Vegetarian with Human Insulin (recombinant DNA): A Case Report

J. H. B. SCARPELLO

A patient with insulin-dependent diabetes mellitus is described. He refused treatment with conventional (animal-derived) insulin since it would have compromised his principles as a vegetarian. Therapy was successfully instituted with human insulin (recombinant DNA). DIABETES CARE 5 (SUPPL. 2): 180, 1982.

The patient, male, first presented with diabetes at the age of 30 yr. He weighed 120 pounds, fasting blood sugar was 9.1 mmol/L, and there were no urinary ketones. He was a determined vegetarian and refused treatment with any animal-derived products, including insulin. He was therefore treated with chlorpropamide (350 mg/day) and a 150-gram carbohydrate diet. Control proved adequate for 12 mo, with an average fasting blood glucose of 10 mmol/L. During the following 6 mo he lost weight, and fasting blood glucose concentrations rose to between 20 and 30 mmol/day. He was cachectic, ketotic, dehydrated, and very ill, but steadfastly refused insulin therapy in view of its animal origin. He was offered human insulin (Lilly), which he accepted, and following treatment rapidly improved (Figure 1). Good control was achieved using a twice-daily regimen of regular and NPH human insulin. He monitored blood glucose concentrations 4 times/day on three days each week. The only clinical problem encountered was the earlier-than-anticipated peak activity of NPH at between 3 and 4 h.

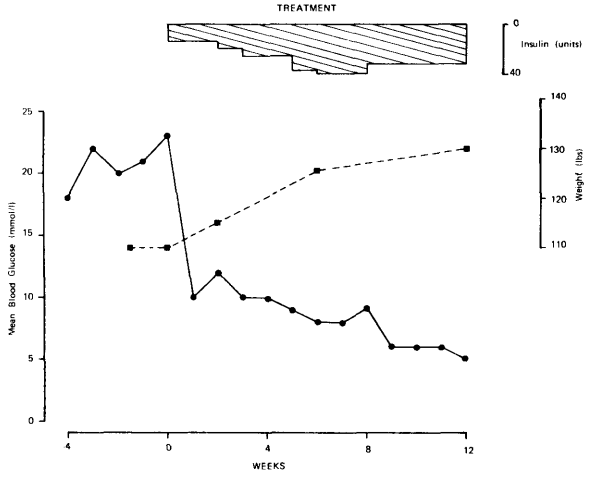

FIG. 1. Effect of human insulin therapy.

COMMENT

This patient presented an unusual clinical problem of management. Treatment with human insulin proved satisfactory with blood glucose control. The action of NPH was found to be more rapid than expected.

From the North Staffordshire Hospital Centre, Stoke-on-Trent, England.

Address reprint requests to J. H. B. Scarpello at the above address.