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Summary of Discussion

Dr. G. H. A. Clowes, Jr., has found that seriously ill, nondiabetic surgical patients have hyperglycemia with normal insulin levels. Even though serum insulin concentrations are normal, the administration of large amounts of exogenous insulin has been found to ameliorate the usual negative nitrogen balance. A circulating peptide has been isolated [from such ill patients?] which, when injected in a rat, produces a negative balance that is not relieved by adrenalectomy.

Dr. Robert H. Williams, commenting on a number of subjects, emphasized the value of early diagnosis of diabetes and the attempt to find diabetes-prone individuals before the disease becomes overt. He reminded the audience that sulfonylurea drugs cause an increased insulin secretion when given acutely but result in a decreased output of insulin when given chronically. Insulin, he said, may not always be a blessing: EEG changes have been reported in 55 per cent of diabetic children treated with insulin, the implication being that hypoglycemia is likely to be frequent in such patients. *Dr. Williams* believes there is some evidence that large doses of in-

sulin may favor the development of atherosclerosis.

Dr. E. F. Pfeiffer believes that the best treatment for diabetes is the provision of insulin at the time that it is most needed. He asked whether anyone knew of patients managed with multiple doses of short-acting insulin for twenty to thirty years and what was the frequency of microangiopathy in those patients. [No one answered, but cases of this kind have been reported.]

Dr. Stefan S. Fajans, replying to *Dr. Williams*, reported that in a group of young diabetics treated with tolbutamide and followed for thirteen years, those who had improvement or normalization of glucose tolerance had no change for better or worse in their insulin response to glucose. *Dr. Fajans* pointed out that, so far as the damaging effect of insulin on the arteries is concerned, patients who have not had insulin have atherosclerosis as well as those who have been treated with insulin. Replying to *Dr. Pfeiffer*, he reiterated the undeniable truth that even multiple doses of regular insulin cannot offer complete control of blood glucose. What is needed is a device that will mimic the normal pancreas.

—HENRY T. RICKETTS, M.D.