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Effect of thyroidectomy upon the reaction of sheep to insulin.

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The author has suggested previously that the effect of thyroxin upon glycogenolysis could be demonstrated after the synthesis of glycogen brought about by the administration of insulin, and submitted some experimental evidence.[1]

Further evidence of the glycogenolytic function of the thyroid is yielded by data upon the reaction of normal and thyroidectomized sheep to the intravenous administration of a standard dose of insulin. In normal sheep a regular drop in the sugar content of the blood takes place, the sugar values reaching a minimum within *about* 35 *minutes* after the injection. Recovery to normal sugar values begins immediately, being complete within 1½ to 2 hours after the injection.

In thyroidectomized sheep the decrease of the sugar values continues until *about* 50 *minutes* after the injection and a more intense hypoglycemia is produced. Recovery to the initial sugar values proceeds at a strikingly slower rate than in normal sheep.

It is suggested that the thyroid is essential to normal recovery from insulin hypoglycemia. Experiments are proceeding upon clinical applications of this principle.

This work was carried out under a grant from the Heckscher Research Foundation.

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1 Bodansky, A., PROC. SOC. EXP. BIOL. AND MED., 1923, xx, 538.