

Effect of Blood Pressure Variability to Glucose Metabolism in Salt Sensitive Rats

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Summary

Purpose: To investigate the effect of the blood glucose level and insulin resistance when blood pressure variability added to diabetes and hypertension.

Method: Intravenous glucose tolerance test (IVGTT) was performed to GK/Slc with Sino-aortic denervation (SAD) to confirm the glucose tolerance. Glucose clamp technique test was performed to DIS/Eis (Dahl-Iwai S) with SAD to investigate the insulin sensitivity.

Result: There was no change in GK/Slc with SAD in blood glucose by IVGTT. Interestingly, GIR and Rd was reduced in Dahl-Iwai S with SAD which represent decreasing the insulin sensitivity.

Discussion: Although there was no change in blood glucose and insulin resistance in normal tension with blood pressure variability, insulin resistance occurred when hypertension with blood pressure variability.

Conclusion: These result suggest that baroreceptor reflex plays important role in the hypertensive patients with the risk of diabetes.