Impairment in insulin secretion without changes in insulin resistance explains hyperglycemia in patients with acromegaly treated by pasireotide LAR

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Objective

Pasireotide is a second line treatment for acromegaly. Apart from the growth hormone (GH) lowering efficacy, clinical use is limited by side effects on glycemic control. The aim of this study was to evaluate longitudinal changes in beta-cell function and insulin sensitivity induced by pasireotide therapy in patients with acromegaly.

Methods

retrospective study in 33 patients (20♀):
• efficacy: GH/IGF-I; tumor size
• glucose homeostasis: glucose, HbA1c, antidiabetic treatment

Results

longitudinal data from OGTT in 14 patients:
• baseline and follow up after 6.1±3.8 and 24.4±11.1 months
• changes in insulin secretion (insulinogenic index; disposition index) and – sensitivity (HOMA, OGIS)

Conclusions:

Worsening of glycemic control during pasireotide therapy is caused by an impaired insulin secretion, whereas insulin sensitivity is not affected.