PHARMACOTHERAPY

Pasireotide shows promise for the treatment of acromegaly

Pasireotide is a promising novel treatment for acromegaly, according to the findings of a randomized phase II trial.

Pasireotide is a somatostatin analog with high affinity for both somatostatin receptor subtypes (types 2 and 5) expressed by most growth-hormone-secreting pituitary tumors. Consequently, pasireotide has the potential to be a more effective therapy for acromegaly than the somatostatin analogs octreotide or lanreotide that have low affinity for the type 5 receptor.

Sixty patients with active acromegaly received octreotide 100 μg three times daily for 28 days and then pasireotide at 200 μg, 400 μg and 600 μg twice daily in random order, each for 28 days. The researchers defined a biochemical response to treatment as a growth hormone level of ≤2.5 μg/l and a level of insulin-like growth hormone 1 normalized to that of controls.

A biochemical response was achieved in 9% of patients after 28 days of octreotide, a low response rate that may partly be due to the possible inclusion of patients who were resistant to previous treatment with somatostatin analogs. After 3 months of treatment with pasireotide 200–600 μg, about one-third of patients achieved a biochemical response and tumor volume decreased by >20% in 39% of patients. Pasireotide was generally well tolerated.

"The potential of pasireotide will only become clear once results are available from the ongoing randomized, phase III study comparing the long-acting release formulations of octreotide and pasireotide," concludes lead researcher Stephan Petersenn of the University of Duisburg-Essen, Germany.

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Original article Petersenn, S. *et al.* Pasireotide (SOM230) demonstrates efficacy and safety in patients with acromegaly: a randomized, multicenter, phase II trial. *J. Clin. Endocrinol. Metab.* **95**, 2781–2789 (2010)