**C25**

# Tumor Shrinkage in a Patient with Cushing's Disease Treated with Pasireotide: A Clinical Case Report

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**Background**: In addition to suppressing growth hormone secretion, somatostatin analogs (SSAs) are known to induce tumor shrinkage in patients with acromegaly. SSAs are generally not effective for treating Cushing's disease (CD). However, pasireotide (a multireceptor-targeted SSA) recently demonstrated sustained mean reductions in urinary free cortisol (UFC) and improvements in signs and symptoms of CD in a 12-month, randomized, double-blind, multicenter, Phase III trial (CSOM230B2305). After 12 months' treatment, there was also an overall mean reduction from baseline in tumor size; however, tumor size data were unavailable for most trial participants. Here, we present a patient with CD who experienced significant tumor shrinkage with pasireotide.

**Methods**: Tumor volume in this post-hoc analysis was approximated by mid-sagittal surface area measured on post-Gd $T_1$-weighted MRI.

**Results:** A 67-year-old man presented with florid CD. Biochemical testing revealed UFC >16x ULN (832 µg/d; normal <50), positive Dex-CRH and IPSS. He underwent transsphenoidal adenomectomy in August 2008 but UFC elevation persisted. He enrolled in CSOM230B2305 1 month later and received pasireotide 600 µg BID. Baseline tumor area was 102.7 $mm^2$. He initially achieved normalization of UFC but his dose was increased to 900 µg BID at month 6 and 1200 µg BID at month 15 when elevations in UFC were noted. He achieved persistent normalization of UFC on 1200 µg BID. Tumor area was reduced to 92.2 $mm^2$ (-9.8%), 100.4 $mm^2$ (-2.3%), 84.7 $mm^2$ (-17.5%), 81.3 $mm^2$ (-20.8%), and 79.5 $mm^2$ (-22.6%) after 6, 12, 18, 36, and 42 months of treatment, respectively (Figure 1).

**Conclusion**: Pasireotide has demonstrated improvements in hypercortisolism and related symptoms in patients with CD; however, data on tumor shrinkage and correlation with biochemical control are limited. This case indicates that, in addition to controlling hypercortisolism and CD-related symptoms, pasireotide may provide significant tumor volume reduction for some patients.

**Figure 1. Change in UFC and Tumor Size During Pasireotide Treatment**