INTRODUCTION. In acromegaly, the reported therapeutic efficacy of somatostatin analogs (SSA), i.e. normalization of GH and IGF-1, is 50 – 70% (44 – 34% in unselected patients). This specific treatment is financially supported by the Romanian National House of Health Insurance for patients with acromegaly.

AIM OF STUDY: to retrospectively evaluate whether random GH and IGF-I levels achieved after 3 months of SSA treatment are predictive for the efficacy of SSA (lanreotide, octreotide) after longer treatment with the same dose.

METHOD: A retrospective review of 71 patients with acromegaly admitted in the Department of Neuroendocrinology, “C.I. Parhon” Institute, Bucharest (2006 – 2012) and treated for at least 6 months with SSA according to the Protocol of the Romanian National House of Health Insurance for patients with acromegaly. In 40 of them data on random serum GH and IGF-1 were available at baseline, after 3 months and at the last evaluation on the same SSA dose. Two patients have been evaluated on 2 different doses of SSA. In the other 31 patients not included in this study, the dosage has been either increased after 3 months – in 21 patients, or evaluated after > 3 months – in 10 patients).

MATERIALS: Serum GH (usually in Parhon Institute): IRMA assay - MAIA Clone (Radim, Italy) – sandwich method with monochlonal a.b. - Sensibility 0.2 ng/ml. Serum IGF-1 (various laboratories, commercial kits). Follow-up protocol: random serum GH (mean of 4 blood samples extracted at 4 hours interval) and IGF-1 were measured at baseline and after 3, (6), 12 and >12 months after therapy initiation. Optimal response to SSA included random GH ≤ 2.5 ng/mL and normal age-adjusted IGF-1 level.

CONCLUSION. In our series, the response to somatostatin analogues evaluated at 3 months was concordant with the response after longer treatment with the same dose in 78.5% of patients for GH and 91.4% for IGF-1.

- When discordanbes between IGF-1 and random GH occur at 3 months, we suggest a re-evaluation on the same SSA dose. If the discordance persists, a dosage increase should be considered.