Primary Therapy of Acromegaly with Somatostatin Analogues-Analysis of the German Acromegaly Register

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Primary therapy with somatostatin analogues (SA) has been discussed as an alternative to surgery in selected patients with acromegaly. So far, 1000 patients have been entered into the German Acromegaly Register. Initial random GH was 29.7+/-2.1 ng/ml, with 92.3% of GH>2.5 ng/ml and 96.1% of IGF-1 elevated. Radiological evaluation revealed micro-and macroadenomas in 21.2% and 63.6%, respectively. Forty-two patients received SA with the intention of primary treatment. Biochemical data after 6-18 months were considered for reevaluation, which was available for 23 patients. Random GH<2.5 ng/ml were found in 50% of patients, and normal IGF-1 in 54.5%. GH and IGF-1 were reduced to 27.0+/-5.2% and 56.0+/7.8% of initial values, respectively. Another 196 patients received SA prior to other forms of therapy, with biochemical data available for re-evaluation in 144 patients treated for 9.9+/-1.8 months. In this subgroup, random GH<2.5 ng/ml was obtained in 26.0% of patients, and normal IGF-1 in 17.1%. GH and IGF-1 were reduced to 72.2+/-9.5% and 81.7+/-4.4% of initial values, respectively. Patients with favorable biochemical response (GH<2.5 ng/ml or normalized IGF-1 levels) had significantly lower pre-treatment random GH. Due the retrospective nature, the reasons for patient’s assignment to either treatment group are difficult to elucidate. The better response rate in the first group may be explained by the lower rate of macroadenomas (43.5% compared with 83.3%). However, biochemical response parameters did not differ between micro-and macroadenomas in separate analysis for each group. Pre-treatment random GH did not differ significantly between both groups (19.5+/-5.7 ng/ml compared with 29.0+/-3.5 ng/ml). In conclusion, primary medical treatment with SA clearly presents an alternative to other treatment options in some patients. Prospective studies are necessary to define patients, which may specifically benefit from either medical or surgical treatment.