

The efficacy of long acting Octreotide (Sandostatin LAR) in acromegalic patients (Current situation in south west area in iran)

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Abstract:

Summary: Acromegaly is a clinical syndrome resulted from excessive secretion of growth hormone with the prevalence of around 6 cases per one million. Somatostatin agonists is one of the approved drugs to treatment of acromegaly which can actually control, to some extent, the secretion of growth hormone remaining after surgery or as the primary treatment . Short-acting analogues of these compounds should be taken three times a day which is very undesirable. long-acting analogues of somatostatin have been on the market for more than a decade, but available for Iranian physicians only within the last 2-3 years. The aim of this study was to determine the effects of long-acting analogue Octreotide (Sandostatin LAR) on the level of growth hormone and insulin-like growth hormone and tumor size and clinical symptoms in patients with Acromegaly (examining the current status in the northwest of the country).

Materials and Methods:

In a retrospective observational study along with follow up in the Division of Endocrinology, Department of Internal Medicine, Tabriz University of Medical Sciences, on patients with Acromegaly, the effects of long-acting analogue Octreotide (Sandostatin LAR) was examined on the level of growth hormone and insulin-like growth hormone and tumor size and clinical symptoms in patients with Acromegaly (examining the current status in the northwest of the country).

Results:

In this study, the use of S-LAR in patients with Acromegaly leads to recovery; so that 72.5% of patients expressed recovery and 27.5 % of patients expressed relative recovery. There was a significant reduction in adenoma tumor size after

treatment with Sandostatin LAR compared to the mean adenoma tumor size before treatment ($P=0.004$). The mean level of pre-treatment IGF-1 was 703.304 ± 72.39 , the mean level IGF-1 at 3 months after treatment was 423.95 ± 228.94 , the mean level IGF-1 at 6 months after treatment was 366.05 ± 195.20 , and the mean level IGF-1 at 12 months after treatment was 297.113 ± 50.67 . Mean GH level at before, 3 months, 6 months and 12 months after treatment with Sandostatin LAR were 31.71 ± 3.03 , 10.31 ± 5.23 , 7.28 ± 3.11 and 6.77 ± 4.38 $\mu\text{gr/l}$, respectively.

There was a significant reduction in the level of IGF-1 and GH at 3 months, 6 months and 12 months after treatment compared to its pre-treatment level among patients ($P<0.001$).

Conclusions:

Sandostatin treatment is an effective and proper method to continue the treatment of acromegalic patients after surgery in cases where a full recovery has not been achieved through surgery or the patients are not candidate for surgery.

Keywords:

Acromegaly, S-LAR, Effectiveness