



THE EFFECTIVENESS OF OCTREOTIDE IN THE TREATMENT OF ACROMEGALY.

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Relevance. Acromegaly is from Greek. acron is a limb, megalos is a large one associated with impaired function of the anterior pituitary gland. The cause of acromegaly in 95% of cases is excessive secretion of STH (somatotropic hormone) by pituitary adenoma, which is not associated with genetic diseases of the endocrine system. Hypersecretion of STH occurs due to gene mutations at the level of α -subunits of the G protein, under the influence of which tumor cell proliferation and increased secretory activity occur. In the remaining 5% of cases, acromegaly is one of the manifestations of hereditary genetically mediated diseases.

The clinical picture is a characteristic symptom complex. Patients complain about changes in appearance are associated primarily with a decrease in quality of life. Characteristic changes in appearance, especially an increase in the hands and feet, can be noticed even with a slight increase in STH. Nevertheless, due to the slowly progressive course of the disease, the "quiet" appearance of various symptoms that do not cause discomfort in patients in the early stages, the disease often remains unrecognized: the diagnosis is established only 8-9 years after the appearance of the first signs of the disease. The cause of disability of patients is most often complications with CVD, deformations of bones and joints, skin changes, the development of diabetes mellitus, impotence in men, as well as changes in the nervous system.

If a pathological process is suspected, an X-ray of the skull in a lateral projection remains for early diagnosis. It allows you to identify gross bone changes in the tumor process, an increase in the size of the Turkish saddle, its double-contour.

Keywords: acromegaly, clinical picture, X-ray of the skull, octreotide treatment, reduction of adenoma size, additional therapy.

The results of the study: Recently, a drug such as Octreotide, the first analogue of somatostatin, has been widely used in therapeutic practice. The drug has a high affinity for the 2nd subtype of receptors and does not bind at all to the 1st and 4th subtypes of somatostatin receptors. The duration of its action is 8 hours, so the drug is administered 3 times a day subcutaneously. Usually, a single dose of Octreotide is 100-200 mcg per injection. Studies have shown that Octreotide gives a rapid and persistent clinical effect in 50-100% of cases (reducing the degree of manifestation of clinical symptoms).

Due to the need for daily repeated injections of Octreotide, quite successful attempts have been made to improve the pharmacological properties of the drug, namely, to create a drug with a longer duration of action.

According to the conducted studies, Octreotide therapy leads to complete disappearance of symptoms in 47-81% of cases, normalization of IRF-I was detected in 66-88% of cases. All patients had an improvement in well-being and quality of life. Octreotide therapy led to the reverse development of disorders of the cardiovascular system: reduction of arterial hypertension, regression of cardiomyopathy, reduction of nocturnal apnea. Achieving a stable normal level of IRF-I within 1 year leads to almost complete restoration of the left ventricular myocardium. One of the main properties of this group of drugs is the ability to cause a decrease in the size of adenomas by suppressing proliferative processes through somatostatin receptors. The results were noted that in 97.8% of cases, reliable, confident control over the size of the tumor was noted [2]. At the same time, the maximum effect was noted during Octreotide therapy: a decrease in tumor size in 80% of patients in the primary therapy group, in 28% of patients in the additional therapy group. For comparison, with lanreotide therapy in the primary therapy group, the effect was achieved in 31%, with octreotide therapy, the effect was obtained in 51% of cases also in the primary therapy group.

Conclusion: Thus, synthetic analogues of somatostatin are effective as a primary treatment method, especially with contraindications to or refusal of surgery, as well as in elderly patients. Considering that more than 80% of patients with long-term octreotide therapy had normalization of STH and IRF-I levels and tumor reduction, indications for this type of therapy were expanded and the possibility was opened to use it as a preoperative preparation in order to reduce the size of the tumor for surgery with a more gentle transnasal access and reduce thus, the number of possible postoperative complications.

References:

1. ACE Medical Guidelines for Clinical Practice for the diagnosis and treatment of acromegaly. *Endocr Pract.* 2004, 10:213-225.
2. Adam N, Lim SS, Ananda V, Chan SP. VIPoma syndrome: challenges in management. *Singapore Med J.* 2010 Jul;51(7):129-32.
3. Alexopoulos D, Hall R, Ross WM, Willinson R. Epidemiology of acromegaly in the Newcastle region. *Clin Endocrinol (Oxf).* 1960 Jan; 12(1):71-9.
4. American Gastroenterological Association. American Gastroenterological Association medical position statement: Short bowel syndrome and intestinal transplantation. *Gastroenterology.* 2008;124(4):1105-1110.
5. Barkun A, Bardou M, Marshall JK, et al. Consensus recommendations for managing patients with non-variceal upper gastrointestinal bleeding. *Ann Intern Med.* 2003;139 10:843-857.
6. Bengtsson BA, Eden S, Ernest L, Oden A, Sjogren B. Epidemiology and long-term survival in acromegaly. A study of 166 cases diagnosed between 1955 and 1984. *Acta Med Scand.* 1988;223(4):327-35.
7. Bissonnette RT, Gibney RG, Berry BR, Bucidey AR. Fatal carcinoid crisis after percutaneous fine-needle biopsy of hepatic metastasis: case report and literature review. *Radiology.* 1990 Mar; 174(3 Pt 1):751-2.
8. Brazeau P, Vale WL, Burgus R, Ling N, Butcher M, Rivier J, Guilemin R. Hypothalamic polypeptide that inhibits the secretion of immunoreactive pituitary growth hormone. *Science.* 1973 Jan 5; 179(68):77-9.

9. Carley DA, Celo JP, Adkisson VI, et al. Octreotide for acute esophageal variceal bleed. *ing: A meta-analysis. Gastroenterology.* 2001;120(14):946-954.
10. Cozzi R, Atanasio R, Moribini M, Pagani G, Lasio G, Lodini S, Barausse M, Ribizi M, Dallabonzara D, Pedronceli A. Four-year treatment with octreotide-long-acting repeatable in 110 acromegalic patients: predictive value of short-term results? *J Clin Endocrinol Metab.* 2008 Jun 1;88(6):3090-8.
11. Dalm VA, Hofmann W, Lamberts SW. Future clinical prospects in somatostatin/cortistatin/somatostatin receptor field. *Mol Cell Endocrinol.* 2008 May 14;286(1-2):262-77.

