

SURGICAL MENAGEMENT OF GIANT PITUITARY ADENOMAS

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Aim of the study:

Surgical strategies and techniques of neurosurgical treatment of patients with giant pituitary adenomas admitted at University Hospital Center Zagreb are presented in this review. The development of skull base endoscopy has resulted in endoscopic endonasal approach being used as te most common approach in the treatment of pituitary adenomas. However there are still cases in which transcranial approach is used.

Methods:

We retrospectively analyzed 228 patients with pituitary adenomas that were surgically treated from January 2012 to December 2016 at our Neurosurgical department. Among those cases 34 were giant pituitary adenomas.

Results:

Endoscopic endonasal approach was used in surgical treatment of 209 patients with pituitary adenomas, 15 of which were giant pituitary adenomas. During the same time 19 patients with giant pituitary adenomas were treated using transcranial approach. The most frequent preoperative symptom was visual impairment and visual field defect 76% and improvement of visual function after surgery was achived in 64% patients. Among the cases with functional tumor 24%, normalization of endocrinological status was achieved in 62% patients.

Conclusion:

Endoscopic endonasal approach is safe and effective procedure even in giant and large pituitary adenomas because it allows rapid and appropriate decompression of optic nerves and chiasm with low morbidity rates. Transcranial approaches are indicated in irregular shaped and eccentric adenomas that cannot be reached through endonasal route.

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