

SURGICAL, PHARMACOLOGICAL, RADIOLOGICAL AND COMBINED TREATMENT OF PITUITARY ADENOMAS.

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Introduction: Adequate treatment of pituitary adenomas (PA) is possible only in specialized clinic like Burdenko neurosurgical institute. Early diagnostic and combined treatment are most important in PA treatment.

Material and methods: We've treated more than 3000 patients during last 10 years. We used different surgical approaches (intra- and extradural transcranial, transsphenoidal, two-stage). Now at about 90% PA removed by transsphenoidal endoscopic approach.

Results: We have 90% radicality in small PA group. Radical removal and hormonal hypersecretion normalisation is rare in cases with large and giant tumors particularly in cavernous sinus invasion. Large (> 35mm) and giant (>60mm) PA are about 25% in our material. We saw correlation between radicalism and recurrence rate. Total mortality is 1.5% and it rise up to 10% in giant (>60mm) PA. Prolactin-se-

creting PA (even in giant) we treat it by dopamine-agonist. Somatostatin-analogues we use in GH-tumors like pre-operative treatment and in some cases after surgery.

In cases of partial removal (particularly in hormonal active tumors), recurrence, or tumors with high mitotic activity (Ki-67 >3%), nuclear polymorphism we use post-op stereotactic radiotherapy. Gamma knife and LINAC like a first-step we use very rare. We regularly follow-up most of our patients for tumor control and adequate hormonal correction.

Conclusion: The optimal treatment choice (surgery, pharmacotherapy, radiotherapy or combined treatment) could be taken commonly by neurosurgeon, endocrinologist and radiologist. Further improvement of PA treatment depends on either surgical technique development or modern pharmacological and radiological methods evolution.

ADVANCES OF ENDOSCOPIC ENDONASAL TRANSSPHEOIDAL REMOVAL OF PITUITARY ADENOMAS

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Material: We had analyzed the results of surgery in series of 638 patients with pituitary adenomas (p.a.), whose primary treatment mode was an endoscopic endonasal transsphenoidal adenomectomy (EETA) for the 4,5 years period (2004-2008). The distribution of p.a. by their localization: 121 - endosellar, 517 with different extrasellar grow. The distribution of tumors by their hormonal activity: 351- non-functioning p.a., other 287 – different secretions p.a. (GH/PRL/ACTH-secreting). The visual disturbances are revelation at 351 patients.

Methods: We used the endoscopic endonasal approach to the sella and tumor removal without the use of a transsphenoidal retractor or any postoperative nasal packing, with a rigid endoscope 0-70° lenses. **Results:** Hormonal status was normalized at 75% of the patients. The improvement of visual functions

or without dynamics in the early p/o period was observed at 96% patients. The majority of the patients are hospital stay of 4 day p/o. Most serious complication of EETA group takes less than 2%. Lethality – 1,25%. **Conclusion:** Advantages of EETA: the panoramic view of an operative wound, good light exposure of operative field. That allows precisely view the basic anatomic structures, to lower risk of their damage, radically remove a tumor, to reveal CSF - leakage and to close defect in tumor capsule. The EETA is less traumatic in comparison with standard transsphenoidal operation, is more easy transferred by the patients, that reduces period of rehabilitation and term of hospitalization of the patients.

Postoperative results show, that the designated advantages of a EETA allow to improve quality of surgical treatment of pituitary adenomas.