

## THE EXTENT OF RESECTION AFTER ENDOSCOPIC TRANSSPHENOIDAL SURGERY OF 228 CONSECUTIVE NON- FUNCTIONING PITUITARY MACROADENOMAS

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**AIM:** Purely endoscopic, endonasal, transsphenoidal approach has become the standard modality of treatment for pituitary tumors. In our patient series, we addresses the extent of tumor resection after fully endoscopic endonasal surgery for pituitary macroadenomas.

**METHODS:** Purely endoscopic, endonasal, transsphenoidal resection was performed in 228 patients with pituitary macroadenomas in a period from 2007 to 2017. The extent of surgical resection was assessed based on postoperative magnetic resonance imaging.

**RESULTS:** Gross total resection of the pituitary macroadenoma was achieved in 136 (59,64%)patients. Subtotal resection and partial reduction was associated with higher Knosp grade, tumor size, and larger extent of suprasellar extension. The firm consistency of the adenoma was also the factor for incomplete resection. 18 (7.89%) patients with residual tumors were reoperated (7 months to 2 years after the first surgery), and 19 (8.33%) patients were treated with Gamma Knife stereotactic radiosurgery.

**CONCLUSION:** Purely endoscopic, endonasal, transsphenoidal surgery of macroadenomas is a safe and efficient modality of treatment for non-functioning pituitary macroadenomas. Reoperation and stereotactic radiosurgery are viable options for residual tumors.

**KEYWORDS:** Endoscopic endonasal transsphenoidal surgery, Pituitary macroadenoma, Skull base surgery, resection