Microprolactinoma

Prolactinoma less than 10 mm in diameter.

Treatment

Current standard treatment of microprolactinomas is dopamine agonist therapy. As this drug treatment is lifelong in up to 80% of cases, many patients consult pituitary surgeons regarding a surgical alternative.

Outcome

Microprolactinomas seldom enlarge, and some resolve spontaneously. Most patients experience a return to ovulatory menstrual cycles and fertility with treatment.

Case series

A study cohort comprised a single center series of 60 patients operated for histopathologically verified magnetic resonance imaging unequivocally identifiable endosellar microprolactinoma between 2003 and 2017 in the Department of Neurosurgery, Medical University Vienna, Austria.

In 31 patients the adenoma was enclosed by pituitary gland (group ENC), in 29 patients the adenoma was located lateral to the gland adherent to the medial cavernous sinus wall (group LAT).

After a mean follow-up of 37 mo (range 4-143 mo), the remission rate was significantly higher in adenomas enclosed by the pituitary gland (group ENC) than adenomas located lateral to the gland (group LAT), with 87% vs 45%, P = .01. Intraoperatively, 4 patients showed signs of invasiveness. Preoperative prolactin levels did not differ between the groups (mean 155 and 187 ng/ml in group ENC and LAT, respectively). A binary logistic regression model revealed that only the radiological criteria applied showed a significant correlation (P = .003) with endocrine remission.

According to this results, remission rate is significantly higher in microprolactinomas enclosed by the pituitary gland. However, the decision for surgery should take into account surgeons experience and possibility of complications [1].

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Micko A, Vila G, Höftberger R, Knosp E, Wolfsberger S. Endoscopic Transsphenoidal Surgery of Microprolactinomas: A Reappraisal of Cure Rate Based on Radiological Criteria. Neurosurgery. 2019 Oct 1;85(4):508-515. doi: 10.1093/neuros/nyy385. PubMed PMID: 30169711.