

# Visual outcomes after pituitary surgery

## Comment on "Pituitary surgery: experience from a large network in Central Switzerland"

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We have read with great interest the study by Berkmann et al. [1] published in this journal. Berkmann et al. [1] used a transsphenoidal approach combined, in some cases, with intraoperative magnetic resonance imaging (iMRI), and reported an improvement in visual acuity in 87% of patients (65 out of 75), which is surprisingly high.

We would like to share our experience of visual outcomes in patients who have undergone pituitary surgery. Baseline and follow-up data for patients with defects in the visual function of one or both eyes who had undergone pituitary surgery with a transsphenoidal approach were assessed retrospectively. Data included best-corrected visual acuity (BCVA, measured in decimal units) and visual field examination of 23 patients. Mean follow-up was 18 months.

Mean BCVA at baseline was 0.8 and mean postoperative BCVA was 0.9 (changes not significant, paired Student's t-test,  $p = 0.1$ ). Visual acuity was improved by one line or more in 7 patients (30%), was stable in 14 patients (61%) and decreased by one line or more in 2 patients (9%). The visual field was improved in 20 patients (87%), but only 13 patients (56%) experienced complete visual field recovery. Our results are in agreement with previous studies [2–4].

In our study, we observed an improvement in BCVA in only 30% of patients, with no statistically significant difference between preoperative and postoperative BCVA. Berkmann et al. suggest that the use of iMRI was the crucial factor for achieving very favourable clinical outcomes, because it led to a high rate of total tumour resection. However, it would be interesting to know whether the

BCVA improvement reported in their study was significant or not, since the authors do not provide statistical evidence of significance.

We believe that, in order to establish iMRI as a standard technique during transsphenoidal neurosurgery, a statistical comparison of visual outcomes between patients subjected to operation with iMRI and those treated without iMRI would be the most appropriate approach.

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### References

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