[Long-term follow-up after surgery for exodeviation]

H Kordic, Veit Sturm & K Landau

BACKGROUND
In strabismus surgery the challenge is the preoperative determination of the surgical dosage. We assessed the long-term follow-up after strabismus surgery for exodeviations and evaluated the employed dosage.

PATIENTS AND METHODS
We present a study of 53 consecutive patients who underwent surgery for exodeviations. One year postoperative results were analysed based on strict criteria. Out of the original group of 53 patients we could evaluate the long-term follow-up in 18 patients, after an average period of 13 years. The criteria for patients with intermittent exotropia and decompensating exophoria after one year and in the long-term follow-up were determined as follows: very good: orthophoria or orthotropia with exo- or esophoria less than 5 PD; good: orthotropia with exo- or esotropia less than 10 PD; satisfactory: orthotropia with exo- or esophoria > 10 PD but less than the preoperative angle; bad: constant eso- or exotropia or > preoperative angle. For patients with a constant divergent strabismus the following criteria were determined: very good: orthophoria or orthotropia with exo- or esophoria less than 5 PD; good: exo- or esophoria less than 10 PD or tropia of 5 degrees (microstrabismus); satisfactory: exo- or esophoria > 10 PD or exo- or esotropia > 10 PD but < preoperative angle; bad: same as preoperative or more. A subgroup analysis of 41 patients who underwent monolateral combined rectus muscle surgery was performed regarding their long-term follow-up (average: 13 years) as well. Concurrently the patients completed a questionnaire.

RESULTS
One year postoperatively 6 outcomes were very good, 14 good, 31 satisfactory and 2 were poor. On average 13 years postoperatively the same patients were evaluated based on the same strict criteria. No outcome was very good, 4 good, 12 satisfactory and 2 were poor. The judgement of the patients in the questionnaire was at both times clearly better. The exo-shift in the first postoperative year was 3.5 degrees, in the next on average 12 years the mean divergent strabismus angle increased by another 2.9 degrees.

CONCLUSIONS
The outcome evaluation after a long-term follow-up showed amazingly stable results compared to the follow-up after one year. With a more aggressive dosage we could have achieved more orthophoric results, but also more undesirable overcorrections.