Visual field defects after selective amygdalohippocampectomy vs anterior temporal lobectomy in mesial temporal lobe epilepsy. [Spanish, English]

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Abstract:

Objective: To compare the incidence and evolution of visual field defects (VFD) after selective amygdalohippocampectomy (sAHC) versus anterior temporal lobectomy (ATL) for the surgical treatment of mesial temporal lobe epilepsy (MTLE). Methods: We retrospectively analyzed the records of 120 patients (67 females, 53 males; mean age 36.3 years, SD 10.2), who underwent epilepsy surgery between 2012-2013. All patients completed a comprehensive standardized preoperative evaluation. For inclusion, patients should have at least one pre and post-surgical computerized visual field examination, and at least one-year follow-up. Results: For both sAHC (n=60; 11 right, 49 left) and ATL (n=60; 45 right, 15 left), association with VFD was significant (-2= 20.89, p=0.000). VFD comprised only quadrantanopsia, with higher incidence in the ATL compared to the sAHC group [73.3% vs 31.7%; U(4.55), p<0.0000]. The odds ratio for developing quadrantanopsia after ATL was 2.8 (95% CI, 1.6-4.9). At follow-up, 115 (95.8%) patients had the same visual field (57 normal, 58 quadrantanopsia), 3 (2.5%) patients had partial recovery of quadrantanopsia (1 sAHC vs 2 ATL), and 2 (1.7%) patients had total recovery of quadrantanopsia, all from ATL group. Seizure outcome was Engel class I for 104 patients, Engel class II for 13 patients, and Engel class III for 3 patients. Conclusions: In our sample, sAHC was associated with less VFD after surgery. Some of these patients may recover their visual field over time, but systematic evaluation is needed, which would be significant when assessing post-surgical quality of life.