

VISUAL FIELD DEFECTS AFTER SELECTIVE TRANSSELYVIAN AMYGDALOHIPPOCAMPECTOMY

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PURPOSE:

To study the incidence and extent of visual field defects induced by selective transseylvian amygdalohippocampectomy using automated static perimetry.

METHODS:

54 patients undergoing selective amygdalohippocampectomy for mesial temporal lobe epilepsy were studied using a Humphrey autoperimeter (program 30/2). Mean deviation of threshold values of preoperative and postoperative visual field testing was entered into the analysis of postoperative visual field changes. Extent of relative and absolute visual field defects was measured in degrees from the center.

RESULTS:

A new postoperative visual field defect was detected in 83.3% of the patients. In 48% of the patients only relative field defects were detected. In 5.6% of the patients the field defect was classified as incomplete hemianopia, in 76% as incomplete quadrantanopia, in one patient (1.8%) as complete quadrantanopia. In patients with incomplete quadrantanopia the visual field defect spared 20 degrees from the center in 28%, 10 degrees in 40%, 5 degrees in 13%. The mean difference of preoperative and postoperative mean deviation was -2.3 dB.

CONCLUSIONS:

Meticulous analysis of visual fields using computer perimetry reveals that incomplete quadrantanopia is more frequently induced by selective amygdalohippocampectomy than previously reported. However, clinically significant changes are rare and can be outweighed by the benefits of successful treatment of refractory epilepsy.