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**The effect on vision of associated treatments in patients taking vigabatrin:
carbamazepine versus valproate.**

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PURPOSE: To evaluate the effect on visual function of a concomitant antiepileptic drug (AED) in patients treated with vigabatrin (VGB).

METHODS: Sixty-four consecutive patients with a history of partial seizures currently treated with VGB with either carbamazepine (CBZ) or valproate (VPA) were examined with automated kinetic perimetry, static perimetry, electrooculogram (EOG), and electroretinogram (ERG). An original device based on kinetic perimetry was developed to quantify the area of perception for each isopter.

RESULTS: Fifty-two patients were finally included. The results showed a significant difference in patients treated with VGB-VPA compared with patients treated with VGB-CBZ concerning the mean defect of static perimetry and the peripheral and midperipheral isopter (III 4e and III 1a Goldmann equivalent, respectively) in kinetic perimetry. EOG and ERG results did not differ significantly between the two groups.

CONCLUSIONS: The visual impairment due to visual field constriction was more important in patients treated with VGB and VPA compared with patients treated with VGB and CBZ. The origin of this difference between the two associations could not be related to any particular retinal electrophysiologic abnormality.