Quantitative Evaluation of Pupil Responses in Patients with Prolactinomas Being Treated with Dopamine Agonists

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ABSTRACT

The aim of this study was to determine whether the dopamine agonist (DA) drug cabergoline used in the treatment of prolactinoma causes autonomic dysfunction by measuring static and dynamic pupillary responses. The study included 25 eyes from 25 patients who were receiving DA for the treatment of prolactinoma and 25 eyes from 25 healthy individuals. Static and dynamic pupillary responses were measured by automatic quantitative pupillometry. The scotopic pupillary diameter was found to be significantly higher in patients receiving DA medication compared with the control group, while pupil contraction time and pupillary dilatation latency were significantly lower. DA drug use changes static and dynamic pupillary responses, probably by increasing sympathetic tone. Pupillometry can be used as a non-invasive method to provide information about changes in the autonomic nervous system in patients receiving such drug therapy.