Saccadic Latency Measurements in Dementia

Linda A. Hershey, MD, PhD; Lawrence Whicker, Jr; Larry A. Abel, PhD; L. F. Dell’Osso, PhD; Sebastiano Traccis, MD; Daurice Grossniklaus, BSN, MS

We measured saccadic latencies in patients with Alzheimer’s dementia (AD) and other types of dementia. The saccadic latencies for both groups were considerably longer than those for age-matched controls. The prolongation was as extensive in patients with other types of dementia as it was in those with AD. There was no correlation between latency and the severity of the dementia.

(Arch Neurol 1983;40:592-593)

Early laboratory examination of patients with progressive intellectual deterioration can sometimes identify a reversible cause of dementia. Nevertheless, autopsy studies have shown Alzheimer’s dementia (AD) to be the most common cause of dementia in the elderly. Currently, no sensitive or specific diagnostic tool is available to distinguish AD from other types of dementia. Pirozzolo and Hansch recently reported that saccadic latencies (SLs) patients with AD were prolonged when compared with those in age-matched controls. They suggested that the magnitude of the SL increase correlated with the severity of the dementia. However, these authors did not address the question of whether ocular motor reaction time measurements are useful in the differential diagnosis of dementia. To determine whether this noninvasive procedure would be useful as a diagnostic tool, we measured SLS in patients with AD and in those with other kinds of dementia.

PATIENTS AND METHODS

We studied 11 patients whose intellectual impairment satisfied DSM-III-R criteria.
COMMENT

Growing public awareness of the variety of causes of intellectual impairment in the elderly pressures today's physician to arrive at a more specific clinical diagnosis than "dementia" or "organic brain syndrome." As in other progressively debilitating illnesses, families also urge physicians to estimate the severity of the disease process. Pirozzolo and Hansch reported that SLs were prolonged in patients with AD and that they correlated well with the severity of the disease. They even suggested a regulatory role for the cerebral cortex in sensorimotor integration, based on their findings.

We also found that SLs were prolonged in patients with dementia affecting the cerebral cortex. However, our results differed from those of Pirozzolo and Hansch in that we found no correlation between SL prolongation and the severity of cognitive and/or functional impairment. Neither did we find prolonged SLs to be specific for any particular type of dementia. Therefore, we cannot recommend SL measurements as a tool in the diagnostic workup of the demented patient.

References