

Differences in gaze behavior and task performance in patients with homonymous visual field defects (HVFDs)

The visual impairments of HVFD patients should result in a reduction of the information input. To overcome this limitation, patients may develop functional compensations by adaptation of gaze (head and eye) movements. In this study we investigated these different compensatory gaze strategies and the resulting task performance of HVFD patients and normal subjects in two different cognitively demanding experiments. We used the cognitively simple dot counting paradigm as visual sampling task and a more demanding visual comparative search paradigm. Based on task performance and gaze parameters we identified two groups of patients. The 'adequate' group was identified as close to normal and the 'insufficient' one showed significantly poorer performance and suboptimal gaze strategies.