Traumatic brain injury and inhibitory processes

La Revue Neurologique a reçu la correspondance suivante :

We read with interest the article by Syssau et al. (2001) who studied the effects of traumatic brain injury on control and suppression of inhibition processes. One main conclusion of this study was that the patients made a lot of suppression errors.

These findings contrast with our eye movement studies (Crevits et al., 2000, Crevits and Tummers, 2000). We studied inhibitory processes in brain injured patients with an antisaccade and a remembered saccade task. In both tasks, a reflexive saccade has to be inhibited first. In the antisaccade paradigm, a saccade has to be made in the direction opposite to the stimulus. In the remembered saccade paradigm, a saccade has to be made to the point the stimulus had been seen some seconds before. We found no statistical differences between patients and age-matched controls in both tasks, either for errors or for latency times. We concluded that inhibitory saccade mechanism and spatial working memory were intact. We did not explicitly distinguish between control and suppression of inhibition. However, our method seems to predominantly load the suppression process.

At least two major reasons can explain the different results. Firstly, in our study mild traumatic brain injury was concerned (Crevits et al., 2000, Crevits and Tummers, 2000) in contrast with Syssau et al. (2001) who studied severe head trauma. Secondly, it could be that our saccade paradigm is less sensitive than the inhibitory task during sentence comprehension. Therefore, we plan a saccade study in more severe head trauma and would suggest to Syssau et al. on the other hand to apply their paradigm to patients with mild traumatic brain injury.

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RÉFÉRENCES

