

Deficit in the water-maze after lesions in the anteromedial extrastriate cortex in rats

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The Morris water-maze task was used to evaluate the role of the anteromedial extrastriate visual cortex in the processing of visuospatial information in rats. Six gray male rats received bilateral ibotenic acid injections targeted stereotactically to the rostral part of the anteromedial extrastriate visual cortex. These operated subjects and six other unoperated control rats were tested in the maze. Histological analysis confirmed the localization, symmetry, and depth of lesions in the rostral part of anteromedial area (AMa) in the operated subjects. In these animals, a significantly greater latency to reach the submerged platform was found ($U = 0$, $p = 0.004$). The Morris water-maze may be considered as a reference memory task. It presents a stronger demand on the use of allocentric spatial visual cues than on the use of egocentric cues for navigation. Therefore, the present data lend support to the participation of area AMa in the integration of allocentric visuospatial cues or as a li