

RESOLUTION OF POST-TRAUMATIC AMNESIA

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Anne Pfaff, B.A.(Hons.), Sydney University

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ABSTRACT

After suffering a severe brain injury a loss of consciousness usually ensues. This period of coma is followed by a period of amnesia, confusion and disorientation and this stage is referred to as post-traumatic amnesia (PTA). Clinical observations have found that simple recognition memory returns before temporal orientation in the majority of severely head-injured patients and this raised the question of whether significant cognitive changes accompanied this pattern of resolution.

Subjects were tested on four occasions on a reaction time task and a memory test. It was found that recognition memory, as measured by the ability to consistently recall the 3 pictures of the PTA scale, resolved before temporal orientation. This return of simple recognition memory co-incided with a dramatic improvement in attention, as measured by simple reaction times. For subjects with a PTA of more than 8 weeks improvement in speed plateaued once they emerged from PTA whereas memory continued to show improvement after emergence from PTA.

These results are important clinically. It has been thought that patients cannot benefit from therapy while they are in PTA. The finding that attention improves dramatically once recognition memory returns means that therapy which depends on procedural memory could begin at this time. In cases where PTA cannot be measured effectively with the use of a PTA scale, reaction times could be monitored and when a plateau was reached one could be reasonably confident that PTA had ended.

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