

1.12. 2006

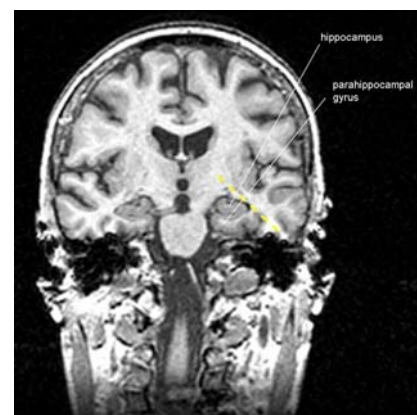
We are writing to thank you for your participation in the TIME Study. With your help, we have recruited 50 patients with Transient Epileptic Amnesia (TEA) from all over the United Kingdom, together with a further 24 unaffected participants for comparison. The largest group studied previously numbered only 10.

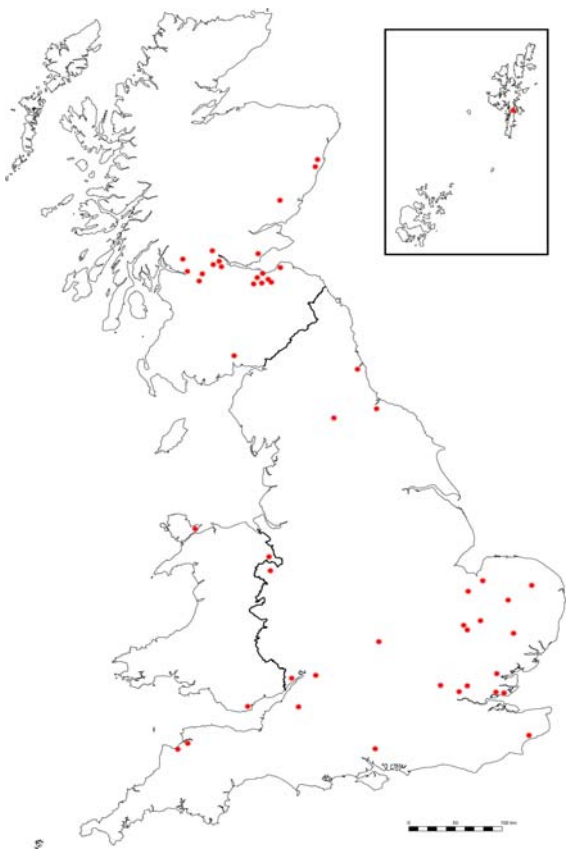
We hope that the detailed results of the TIME Study will be published soon in a medical journal. Once this is available, we would be delighted to send you a copy, if you wish. This letter summarises the main results.

We have found that the features of TEA are consistent from one person to another. The defining characteristics are 1) recurring episodes of memory loss (amnesia) during which the individual is otherwise able to function normally, and 2) evidence that these episodes are caused by epilepsy. The condition usually affects middle-aged or older people and attacks generally last for around half an hour. People have described being able to eat a meal, hold a conversation, play a card game or go shopping during the period of memory loss. The attacks often occur upon waking in the morning or after a midday nap and are sometimes associated with unusual sensations of smell. They generally stop happening once treatment for epilepsy has been prescribed.

However, people who had had attacks of TEA sometimes notice problems with their memories between episodes, and these may continue after treatment. In particular, some people find that they tend to forget new information more rapidly than expected over a period of days to weeks. Others have gaps in their memory for important events such as holidays or weddings. Some people also report having trouble finding their way around the streets of places that they previously knew well.

Attacks of TEA are caused by minor epileptic seizures (like an electrical short-circuit), restricted to areas of the brain that deal with memory. These areas, including a structure called the hippocampus (see picture), lie deep inside the head. Why the seizures occur is not yet known. Detailed MRI scanning of the patients who participated in TIME has not so far revealed any major changes in the brain: we are continuing to make measurements on these scans to see whether we can find any more subtle changes.





UK map showing distribution of 50 TEA patients in the TIME Study

Transient Epileptic Amnesia results in:

1) recurrent attacks of memory loss that:

- usually begin in middle to old age
- often occur upon waking
- usually last less than one hour
- are often associated with unusual sensations of smell
- are sometimes partially remembered afterwards
- usually stop on treatment with antiepileptic medication

+/-

2) persistent difficulties with memory, including:

- ‘accelerated forgetting’ – whereby recently acquired memories fade over a number of days or weeks
- ‘autobiographical amnesia’ – the patchy loss of memories for events, such as holidays or weddings, in the remote past
- ‘topographical amnesia’ – problems with route-finding

Not all of these features are present in everyone with TEA.

Research Staff

Adam Zeman, the principal investigator of the TIME Study, has moved from Edinburgh to Exeter, where he now works as Professor of Cognitive and Behavioural Neurology at the Peninsula Medical School.



Chris Butler, research fellow, is currently a Visiting Scholar in Neurology at the Memory and Aging Center, University of California, San Francisco and will return to a Clinical Lectureship in Edinburgh in 2007.

Where to from here?

We have secured continuing funding for the study which will enable us to keep working on some unanswered questions.

Dominika Pindus has recently joined us as a PhD student to study the loss of memory for past events that sometimes occurs in people with TEA. This work was part of the original plan for the TIME study, and we will be writing to some participants soon to see whether they might be willing to take part in this aspect of the work.

Over the next year we will recruit another senior researcher, and are planning to work on the following questions: Where exactly in the brain does TEA arise? What is the explanation for the other memory problems that sometimes arise in people who have had attacks of TEA? Do similar problems occur in other conditions? Can we prevent these problems?

We are very grateful to you for your help so far, which has helped to provide a much clearer picture of this type of epilepsy that than was available previously.

Further information can be obtained at our new website:

<http://www.pms.ac.uk/time/index.php>

With all best wishes for Christmas and the New Year,

Yours sincerely,



Adam Zeman
Professor of Cognitive and
Behavioural Neurology,
Peninsula Medical School,
Barrack Road,
Exeter EX2 5DW
Email: adam.zeman@pms.ac.uk



Chris Butler
Visiting Scholar in Neurology,
Memory and Aging Center
UCSF
San Francisco
USA
Email:chris.butler@ed.ac.uk