ABSTRACT

Transient global amnesia is characterized by abrupt and short lasting loss of ability to recall recent events or to remember new information. A case of transient global amnesia is presented and the importance of awareness of this condition for the psychiatrist is discussed.

Key words: Transient global amnesia, transient amnesia, amnesia

The syndrome of transient global amnesia consists of episodes, abrupt in onset, during which the patient displays profound memory difficulties despite remaining alert and responsive to the environment. The memory deficit is 'global' in the sense of affecting all modalities - visual impressions, verbal material, thoughts, events etc. Confabulation is rarely observed.

Attention was first drawn to the condition by Bender (1956, 1960). It was independently described by Fisher & Adams (1958, 1964) who gave it in its name.

Most patients are affected in late middle or old age. Abruptly and without warning the memory apparatus ceases to function, with the result that current experiences are not recorded in memory. The patient apparently remains alert and responsive but usually appears bewildered by his inability to understand his experiences. In contrast to the difficulty with recent memory and inability to store new information, recall appears to be normal for events of the distant past. During the attack there is no impairment in the state of consciousness, no overt signs of seizure activity, and personal identity is intact, as are motor, sensory and reflex functions. Attacks usually last from 6 to 24 hours after which retrograde memory deficit gradually shortens. After complete recovery an amnesic gap remains for the period of episode, together with a permanent retrograde amnesia of several minutes to hours. Other than this, there are no enduring sequelae in a typical case (Lishman, 1987; Caine and Lyness, 2000). However, recurrence of attacks is not uncommon (Fisher and Adams, 1964; Heathfield et al., 1973).

CASE REPORT

A 67 year old lady was in apparently good health when she got up one morning. She did her normal household chores and gave breakfast to her husband. She then told her husband to fetch some things from the market. Her husband returned from the market after an hour and found her behaviour to be strange. She enquired from her husband as to why he had brought all the things from the market and denied that she had told him to bring them. She then went to the kitchen and started making breakfast for her husband. On being told by her husband that she
had already prepared and given breakfast to him, she denied any knowledge of it.

With the above history she was brought to our OPD the same day by her husband. The patient denied any complaints. There was no past history of seizures, diabetes, hypertension, cardiac problems or similar episodes. Psychosocial history did not bring out any environmental stress. Physical examination revealed her to be averagely built and nourished. She was normotensive. No abnormal signs were found on neurological examination. Fundus was within normal limits. Cardiovascular system examination also did not reveal any abnormality. Psychiatric evaluation found her to be anxious and perplexed. Talk was relevant and coherent. There were no delusions or hallucinations. Recent memory was grossly impaired. She did not remember the events of the day and of the previous day. However, remote memory was intact. Attention and concentration were unimpaired as tested by the digit span. She could not tell the date or day but knew the month and year. Orientation to place and person was normal.

She was evaluated in detail. All relevant investigations including metabolic parameters, lipid profile, EEG, ECG and CT Scan head were within normal limits.

When seen in the OPD the following day, her memory functions had returned to normal. She could remember all the events of the day prior to the attack but had only patchy memory for the day of the episode.

DISCUSSION

Transient global amnesia is not an uncommon condition. It occurs in 5 to 10 cases per 1,00,000 people per year, although, for patients more than 50 years old, the rate may be as high as 30 cases per 1,00,000 people per year (Kaplan et al., 1994). However, a Medline search has revealed only one report of 4 cases from India (Maheshwari, 1984). It is generally a benign condition. No treatment is required except reassurance and explanation regarding the benign nature of these episodes to the patients and anxious relatives. It derives much of its importance to the psychiatrist from the mistake in diagnosis which are liable to be made unless one is conversant with this syndrome.

A short-lived episode may raise the possibility of temporal lobe epilepsy. However, most psychomotor attacks are brief, lasting minutes rather than hours and may be ushered in by aural manifestations which are totally lacking in transient global amnesia. During a psychomotor seizure there is clouding of consciousness, poor appreciation of the environment and purposeless or automatic behaviour. By contrast, the patient with transient global amnesia is alert and fully in touch with surroundings. He responds to questions appropriately and behaves normally apart from his obvious memory defects. Recovery of normal mental function is gradually after an attack of transient global amnesia whereas it is usually abrupt after a psychomotor seizure.

Many patients will be suspected to be suffering from minor strokes. In fact, it seems very likely that pathology in the vertebrobasilar system may be responsible for the majority of attacks of transient global amnesia (Lishman, 1987; Cainee & Lyness, 2000). Heathfield et al. (1973) and Mathew & Meyer (1974) produced considerable evidence for a basis in cerebrovascular disease in their patients. Several functional imaging studies have shown decreased blood flow in the temporal and parieto-temporal regions in patients of transient global amnesia (Stillhard et al., 1990; Laloux et al., 1992). Sander et al. (2000) showed evidence of disturbance in internal jugular venous flow in cases of transient global amnesia. Temporary insufficiency of the circulation rather than actual infarction is probably responsible, in view of the short-lived nature of the episodes and their complete resolution. It remains difficult, however, to account for the relative rarity of other associated neurological deficits when at the same time the amnesia is so profound.

A psychological origin for the amnesia is quite after entertained, especially since follow-up fails to reveal the development of any organic disease. However, the setting and manifestations of the attacks are unlike amnesic episodes due
to psychological causes. Psychological amnesia is uncommon in the age group affected by transient global amnesia and obvious psychological precipitants generally do not come to light, though. Fisher (1982) described precipitating events such as highly emotional experience, sexual intercourse, pain, stimulation of Trigeminal ganglion and swimming in cold water in some of his patients. The retention of knowledge of personal identity throughout the attack is also at variance with what is commonly found during psychological amnesias. The memory difficulties are not related to matters of personal concerns or specific themes, there are no inconsistencies in performance and no evidence of gain. Episodes of psychogenic amnesia end abruptly. In contrast, the retrograde amnesia of transient global amnesia gradually shortens as the patient recovers and when recovery is complete the memory gap spans only the period of the episode.

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