CASE REPORT

Bilateral Thalamic infarct with Neuropsychiatric manifestations

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ABSTRACT

Thalamic infarcts presenting predominantly with psychiatric manifestations are rather uncommon. They usually have a constellation of neurological and psychiatric symptoms involving altered consciousness, vertical gaze palsy, motor and sensory symptoms with cognitive deficits involving memory. A middle-aged male with Bilateral Thalamic infarct who presented with prominent delusions and cognitive deficits involving memory, orientation and attention despite treatment is here by reported.

Key words: Thalamic infarct, Neuropsychiatric, cognition, Delusions.

INTRODUCTION

Bilateral Thalamic Infarcts usually present with a myriad of neurological symptoms including impaired consciousness, cognitive deficits, oculomotor disturbances, memory disturbances, sensory loss, hypersexuality, apathy, cerebellar symptoms and abnormal movements. Studies reporting the incidence of these cases are rare. One study reported the incidence as 0.6% among ischemic stroke patients (Kumral et al, 2001). There is a paucity of literature regarding psychiatric manifestations of this illness and hence this case is presented.

CASE REPORT

A 52 years old male from an urban area in central TamilNadu reported with suspicion about his wife’s conduct, accusing her of mixing poison in his food and memory deficits of 6 months duration. History revealed that 6 months back he had suffered an episode of giddiness, followed by confusion, disorientation and altered consciousness. Four months prior to this episode, he had been diagnosed as a case of diabetes mellitus and he had not taken any treatment for diabetes. Subsequently following the episode of confusion, disorientation and altered consciousness, treatment for diabetes had been started and CT Brain scan was done. CT had revealed bilateral thalamic infarcts. He had been a social drinker until 4 years ago. There was no past history of mental illness and significant physical illness.

On mental status examination, he was not oriented to time and place. He was perplexed with irritable mood. His attention was impaired. Recent memory was impaired with confabulation.

He had delusions of persecution and jealousy. There were no perceptual disturbances. He lacked insight into his illness.

Neuropsychological assessment was done. In Mini Mental State Examination, he showed disturbances in memory and orientation. Wechsler’s memory scale showed moderate degree of memory impairment and his memory quotient was 60. There was severe impairment in areas of orientations and verbal reproductions. Bender-Gestalt test brought out organicity in the form of rotated figures, difficulty in angulations and his inability to copy the interlocking pictures. It also brought out severe impairment in visual recall. Bhatia short scale assessed his intelligence level as below 70. Blessed, Tomlinson & Roth’s Dementia Rating Scale showed changes in performance of everyday activities suggesting dementia.

A diagnosis of sub-cortical (thalamic) dementia was made. He was treated with oral hypoglycemic, chlorpromazine 100 mg HS, aspirin 75 mg OD. On periodic assessment, he showed improvement in attention and constructional abilities. Rotations and perseverations initially found in the Bender-Gestalt test drawings disappeared, but recall of the drawings as well as verbal items on memory testing continued to be impaired. His delusions of jealousy and persecution persisted.

DISCUSSION

Thalamic infarcts are mainly due to small vessel occlusion. Among ischemic strokes, bilateral thalamic infarction is uncommon. In bilateral thalamic infarcts, the most commonly involved arteries are Para-median thalamic penetrating artery (approximately 50%) and Thalamo-geniculate arteries. Both arteries have been reported to be involved in some cases (Kumral et al, 2001). Clinical localization of the lesion is a challenge due to myriad of ways of presentation. Mauri et al, 2000 reported a case with fluctuating levels of consciousness in bilateral thalamic infarcts. Kumral et al, 2001 studied 16 patients over a 7-year period and reported that they exhibited disorders of consciousness, memory dysfunctions, vertical gaze palsies, bilateral sensory loss and psychic changes in various combinations. Ujike et al, 1989 reported a case with Korsakoff’s syndrome after recovery from disturbances of consciousness. The case also had vertical gaze palsy, areflexia of lower extremities, spathy, hypersexuality, disorientation, amnesia with confabulation and lack of insight into his disability. Martinez et al had reported 12 cases pointing out that they differed in the presence of cerebellar signs and the absence of pyramidal or sensory signs. Guberman...
et al, 1983 reported a case with transient coma followed by asterixis, hypersomnia, vertical gaze disturbances, Korsakoff's syndrome and sub-cortical dementia. Buttner et al, 1991 investigated 23 cases followed up for 5 years. No clinical abnormality was detected in 11 cases and the rest showed hemi-paresis, vertical gaze palsy, disorders of visual retention and deficits in concentration.

This case that is reported had altered consciousness with disorientation. On recovering consciousness, he presented with delusional jealousy and profound memory loss. This case had altered consciousness and memory disturbances as reported by others. Vertical gaze palsy that has been uniformly reported by other workers was not seen in this case. The disturbances in attention and constructional abilities improved while the memory deficits and delusions persisted after one month at the time of discharge from the hospital. The case is reported for its rarity, absence of localizing signs and for the presence of persistent delusions in bilateral thalamic infarction.

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