

Poster presentation

A case of malignant astrocytoma in left thalamus mimicking mild cognitive impairment

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Background

Tumors arising in the thalamus are relatively rare and account for approximately 1% of all intracranial neoplasm. Thalamic tumor are seen predominantly in children and most of them are low-grade tumors. We report a rare malignant astrocytoma involving the thalamus mimicking mild cognitive impairment.

A 73-year-old, right-handed man presented with slowly progressive memory disturbance. These symptoms have developed five months ago.

He has had increasing difficulty remembering appointment, but he has been handling his own finance and had no difficulty making use of bus service.

He had mild, persistent impairment of vigilance, but he had no personality change and no complaint about his dizziness.

In past medical history, he was diagnosed as atrial fibrillation and had been treated.

Neurologic examination revealed no focal neurologic deficit.

Mini-Mental Status Examination was 23/30.

According to neuropsychological test, the result showed verbal and visual memory deficit due to retrieval problem accompanied by visuospatial and frontal executive dysfunction. Verbal memory testing showed sparing of short-term memory.

He showed normal performance on language, calculation and praxis

His activities of daily living were normal.

We thought that the first impression is multiple-domain mild cognitive impairment.

Brain MRI revealed malignant astrocytoma in left thalamus with associated tumor infiltration in left insular, temporal and parietal lobe.

Conclusion

Our findings emphasized the brain imaging is very important to find the cause of the cognitive decline and the thorough neurologic examination must be performed.

We suggest that the cognitive decline is probably due to involvement of anterior nucleus, mamillothalamic tract, anterior parts of dorsomedian, and intralaminar nuclei.

We think that the mild and persistent impairment of vigilance is caused by lesions of the intralaminar nuclei located in the internal medullary lamina.

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