Large falcine meningioma presented as treatment-resistant depression: A case report

Sim Sze Kiat, MSurg[1,2], Khairul Aizad Bin Adzman, MD[2], Lim Swee San, MSurg[2], Albert Wong Sii Hieng, FRACS[2]

[1]Department of Surgery, Faculty of Medicine & Health Sciences, Universiti Malaysia Sarawak, Sarawak Malaysia, [2]Department of Neurosurgery, Sarawak General Hospital, Sarawak, Malaysia

SUMMARY

Large intracranial tumour may present only with psychiatric symptoms without any neurological deficits. Delay in surgical treatment may significantly affect the quality of life in these patients. We report a case of a young engineering student who was diagnosed as treatment-resistant depression without initial neuroimaging study. Further neuroimaging studies revealed he has a large falcine meningioma. His psychiatric symptoms resolved following surgical resection of the tumour. We emphasized the importance of initial neuroimaging study in young patients presenting with psychiatric symptoms.

INTRODUCTION

Intracranial tumours commonly present with neurological signs and symptoms related to mass effect. However, some patients may present with psychiatric symptoms only especially when a slow growing tumour is located in the frontal lobe. The incidence of psychiatric symptoms in patients with brain tumours has been reported as high as 50 to 78%.[1,2] Here we report a case of a young patient with falcine meningioma who was diagnosed and treated as depression for 10 years without initial neuroimaging study and nearly undergo for electroconvulsive therapy.

CASE REPORT

The patient is a 33-year-old man who presented with progressive behavioural changes, poor memory and social isolation over the past ten years. He had twice dropped out from engineering course in two different colleges due to his illness and was treated for depression at private clinic for nine years. His symptoms worsened since the last one year, where he spent most of his time on the bed with poor oral intake and poor self-care. He was then taken to a private hospital and treated as a case of major depressive disorder. He was prescribed with Olanzapine and Desvenlafaxine. No initial neuroimaging study was performed during the years. There was no history of chronic headache or any symptoms that was suggestive of raised intracranial pressure or motor-sensory deficits all the while. Subsequently, he was referred to the Psychiatry Team for electroconvulsive therapy in view of failed medical therapy. Computed tomography (CT) scan of the brain was arranged and scan revealed a large falcine meningioma. Following that he was referred to the Neurosurgical Team for further management.

On examination, he was conscious but blunted looking and appeared lethargic. He was slow in response including his speech but was still able to follow simple two steps commands. Pupils were 3mm bilaterally and reactive to light. Fundoscopy examination revealed bilateral papilledema. There was no cranial nerve dysfunction. His lower limbs power was 4/5, hypertonia and hypereflexia. Assessment of higher mental functions was not performed due to general slowness of his response.

Magnetic resonance imaging (MRI) of the brain demonstrated a well circumscribed falcine meningioma measuring about 7cm X 7.5cm X 7.5cm. There was no involvement of the superior sagittal sinus (Figure 1).

Patient was started on steroid therapy and antiepileptic prior to surgical intervention. He underwent bifrontal craniotomy and excision of tumour (Simpson 2). Intraoperatively, the meningioma was firm with multiple arterial feeders from the falx. Tumour was devascularised medially from the falx, centrally debulked and excised. Histopathological finding was consistent with Meningioma (WHO grade 1).

Postoperatively he had transient worsening of frontal lobe syndrome as he uttered rude words and disinhibition. However, these symptoms subsided after three days. The subsequent recovery period was uneventful, and he started to mobilise in the ward. At post-operative one week, he appeared cheerful with normal speech, and communicated well with his mother and the hospital staff. The power in his lower limbs also improved to 5/5 one week after the surgery. The anti-depressant and anti-psychotic medications were then ceased at post-operative two weeks. Neurology examination at postoperative three-month revealed his memory was improving with no other neurological deficits. There was no longer appearance of any of his pre-operative neuropsychiatric symptoms and was able to use telecommunication device. At one year follow up, his higher mental function was intact and started farming works for living. Figure 2 showed the one-year postoperative MRI of the brain with no recurrence.

DISCUSSION

Meningioma is a slow growing tumour and it can grow to considerable size before symptoms become apparent.[3] Commonly the manifesting symptoms are due to the

This article was accepted: 25 November 2018
Corresponding Author: Dr Sim Sze Kiat
Email: ssksimon@gmail.com