CASE REPORT

Neuropsychiatric Manifestations of Acute-on-chronic Subdural Hematoma in a Lady with Learning Disability: A Case Report

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Abstract

Chronic subdural hematoma manifests differently and may mimic the presentation of psychiatric illnesses. Many a time, physicians are quick to judge that new onset of psychiatric symptoms is due to the worsening of the existing psychiatric illness. We reported a case of a lady with learning disability presenting with neuropsychiatric symptoms who was found to have an acute-on-chronic subdural hematoma. We discussed regarding the new onset of neuropsychiatric features seen in patients with chronic subdural hematoma and its management.

Keywords: Neuropsychiatry, Chronic Subdural Hematoma, Learning Disability, Malaysia

Introduction

Chronic subdural hematoma (CSDH) is defined as liquefied hematoma in the subdural space with a characteristic outer membrane which occurs at least 3 weeks after head injury.¹ The incidence of CSDH is not well known. It is demonstrated to be increasing due to an increase in the aging population and increase of the elderly patients receiving haemodialysis, anticoagulant, and antiplatelet therapy.² Symptoms and signs of chronic subdural hematoma vary from days to weeks presenting with features including gait disturbances, cognitive decline, limb weakness, confusion, headache, speech impairment and drowsiness or coma. Several studies have shown that CSDH can manifest with altered mental status, change in personality, memory and orientation problems as well as dementia.³,⁴,⁵ There are limited reports on CSDH with neuropsychiatric presentations in our Malaysia setting. This case study described a lady diagnosed with learning disability, who had chronic subdural hematoma which presented with worsening neuropsychiatric symptoms.

Case Summary

Ms.X is a 41 year old single Malay lady who is diagnosed with Learning Disability. There were episodes of disturbed behaviours followed by stabilization. Ms.X was able to care for herself and perform simple house chores. Her condition was stable on tablet
Sodium Valproate, tablet Olanzapine and tablet Clonazepam. However, during periods of disturbed behaviour, she was irritable, screamed and cried inappropriately. She also had hallucinatory behaviours such as talking and laughing to herself. In August 2016, her symptoms started to worsen. There was increased hallucinatory behaviour and worsening behaviour. Ms.X would scream with no apparent reasons and would throw objects if she was told off. Ms.X also exhibited symptoms of hyperorality. She increasingly demanded for food and would consume them till she was nauseated. Besides that, Ms.X had self-harm behaviours such as hitting her hand on the wall. These symptoms led to her admission to the psychiatric ward.

In the ward, she was noted to have increased hallucinatory behaviour and was sexually disinhibited. She was also noted to be masturbating. Her speech was increasingly irrelevant. Despite optimising her medications, Ms.X’s symptoms did not show any improvements. Physical examination and blood investigations were normal. Her conscious level was intact throughout. EEG showed no abnormalities. Urgent brain computed tomography scan (CT) showed a left fronto-temporo-parietal acute-on-chronic collection measuring 1.8cm with midline shift of 1.0cm to the right and mild dilatation of right lateral ventricles.

Ms.X was admitted to the Neurosurgical ward immediately for further management. Tablet Dexamethasone was started and gradually tapered off after three weeks. Apart from tablet Dexamethasone, Ms.X was continued on tablet Haloperidol, tablet Sodium Valproate and tablet Clonazepam which was started during her admission in the psychiatric ward. Repeated brain CT scan one month later showed resolution of the left subdural fronto-temporo-parietal collection with no midline shift.

Ms.X condition improved during her stay in neurosurgical ward. She had less hallucinatory behaviours, was not sexually disinhibited and had no further hyperorality. The aggressive and self-harming behaviours disappeared. She was also able to care for herself and return to her previous routine.

**Discussion**

CSDH may present with various neuropsychiatric symptoms such as dementia, psychotic symptoms, and behavioural problems. There was a case report of an elderly patient with chronic subdural hematoma without signs of compression who presented with behavioural problems, memory problems and psychotic symptoms. CSDH may also present with withdrawn and disorganized behaviour, apathy and poverty of speech. In this case, it is difficult for the physician to differentiate between worsening of psychosis and behaviour in a learning disabled lady or something more sinister such as underlying brain pathology. The worsening of these symptoms led to her admission to the ward. As her speech was irrelevant and physical examination showed no abnormalities, these added to the complexity in the detection of the CSDH. Medications were optimised but there was no improvement. Hence, this alerts the physician-in-charge to investigate further on other possible underlying causes.

Psychiatric symptoms vary depending on the region of brain affected by the lesion. CT scan of the brain findings showed a subdural collection involving the whole left fronto-temporo-parietal region. There was cerebral edema and compression of the body of left ventricle with midline shift. There was also
mild dilatation of the right lateral ventricle which suggests possibility of early hydrocephalus. This correlates with the patient’s manifestation of psychiatric symptoms. She had frontal lobe symptoms such as lability and irritability, loss of inhibitions, and inappropriate behaviours. Ms.X also had temporal lobe lesion symptoms such as worsening auditory hallucinations which she presented as worsening of self-talk behaviour.9,10

CSDH can be treated either conservatively or surgically, with the latter being the mainstay of treatment for symptomatic patients. Treatment with steroids is one of the adjuvant medical therapies used in the treatment of CSDH. However, their role as preoperative or postoperative therapy or monotherapy instead of surgery remains unclear11. Dexamethasone was found to be a safe alternative and had comparable outcomes with those treated surgically12,13. Ms.X was not indicated for surgical interventions and was treated conservatively with Dexamethasone. Repeated brain CT scans showed complete resolution of CSDH after treatment with steroids. During her follow up, Ms.X also showed marked improvements in her psychiatric symptoms.

Antipsychotics are efficacious in the treatment of psychotic features regardless of etiology14. Typical antipsychotics such as Haloperidol have fewer anticholinergic side effects, causes less sedation and less hypotension. However, they have a higher risk of causing neurological side effects such as parkinsonism. Atypical antipsychotics cause less parkinsonism and have a better side effect profile. A study has shown that Quetiapine was efficacious and well tolerated in medically ill patients14. Ms.X tolerated Haloperidol well without any side effects. Hence, physician must weigh the pros and cons of both group of antipsychotics based on patient’s condition before starting.

Conclusion

Neuropsychiatric symptoms may be a manifestation of an underlying chronic subdural hematoma. We need to have a high index of suspicion when we treat patients who do not improve from medications. New psychiatric symptoms should not be taken lightly especially in patients with learning disability as these symptoms could be a sign of an organic pathology.

References


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