

Refractory Post-viral Leukoencephalitis: A Case Report

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Minor infections can cause immune-mediated post-infectious encephalitis, clinically characterised by acute focal neurological signs and encephalopathy [1]. Although rare, it can be life-threatening and require intensive care. A 45-year-old female presented with severe headache, sudden onset left-sided weakness and right arm clonic movements. She had a recent 2-week history of coryzal symptoms and fever. CT head showed generalised brain swelling with mass effect and preserved grey-white matter. MRI showed extensive white matter disease more prominent on the right side. She was started on antiepileptic medication and IV Methylprednisolone on the presumption of immune-mediated leukoencephalitis. Electroencephalography showed features of diffuse encephalopathy more over the right hemisphere. Albeit high-dose steroid, she developed further neurological deterioration with worsening cerebral oedema and mass effect on a repeat CT head. An urgent decompressive craniectomy was performed with an improvement of her GCS. Cerebrospinal fluid analysis however was not performed due to the potential risks associated with increased intracranial pressure and intraoperative ventriculostomy. Nevertheless, primary infectious encephalitis was regarded as highly unlikely therefore antimicrobials were discontinued. She underwent plasma exchange and continued with a weaning course of steroids. A repeat MRI after therapy showed significant improvement in the white matter oedema and swelling. Following treatment, she had an excellent recovery and was able to mobilise independently on discharge. History, clinical presentation and MRI are essential in diagnosing post-infectious encephalitis in the absence of CSF analysis to initiate immunomodulatory therapies. Careful consideration of other aetiologies of acute infectious and non-infectious encephalitis is imperative. Appropriate supportive care and careful attention to its serious complications are crucial to ensure favourable outcomes.

Keywords: Leukoencephalitis, encephalitis, immune-mediated encephalitis, post-infectious leukoencephalitis, post-viral leukoencephalitis

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