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Delta Brush Waves: An early indicator of anti-NMDA Encephalitis

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Delta brush waves on electroencephalography may be considered as an early diagnostic and prognostic finding in children with anti-NMDA encephalitis [1]. They are characterized by delta waves with overlapping fast spike activity [2]. Delta brushes appear from the first to the third week of disease [1]. We report the finding of delta brush waves in a 7 year-old male who presented with focal epileptic seizures and subsequently diagnosed with NMDA receptor autoimmune encephalitis (Figure 1). MRI showed T2 hyperintensity in the left cerebellar hemisphere. The CSF was positive for anti-NMDA receptor IgG antibodies. Patient was treated with IV methylprednisolone, IVIG, and rituximab.

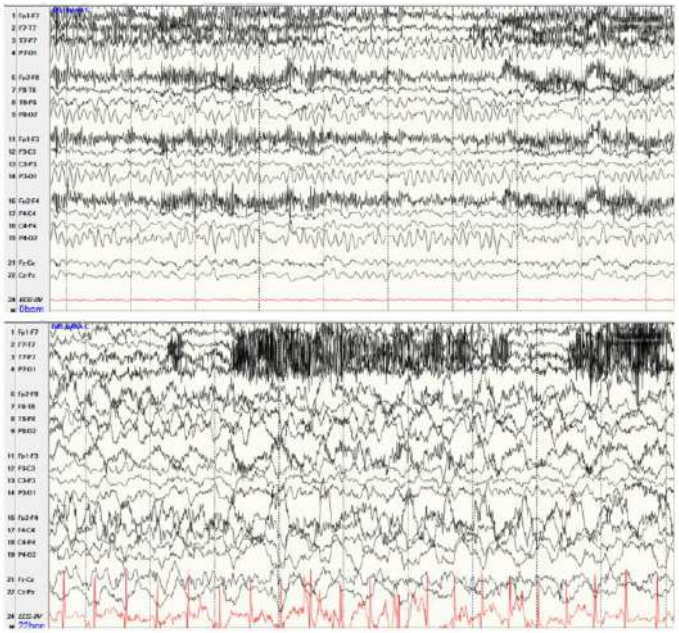

Figure 1: Top image shows EEG Prior to onset of anti-NMDA encephalitis. Bottom image shows delta brush waves in the bilateral frontal regions (F3, F7, F2, F8) with an amplitude between 200-210 microvolts.

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