| Study | Patient number | Sex | Age | Anti-NMDAR antibody in CSF/ subtype | Anti-NMDAR antibody in serum/ subtype | Histopathology | Time from HSV encephalitis presentation to detection of antibody positivity | Clinical features at relapse | Immuno -therapy | Outcome |
|---|---|---|---|---|---|---|---|---|---|---|
| [2] | 1 | M | 2Mo | IgG+IgM | IgG | N/A | 24D | Choreoathetosis, irritability, sleep disorder | None | Recovery |
| [2] | 2 | F | 6Mo | IgG+IgM | IgG+IgM | N/A | 1Mo | Fever, diarrhea, irritability, insomnia, choreoathetosis, unresponsiveness | MP, IVIg, Ritux, Cycloph | Recovery |
| [2] | 3 | M | 8Mo | IgG+IgM +IgA | IgG+IgM | N/A | 23D | Irritability, unresponsiveness, seizures, choreoathetosis | MP, IVIg, Ritux, Cycloph | Recovery |
| [3] | 4 | F | 8Mo | N/A | IgG | N/A | 14D | Encephalopathy, chorea | MP, IVIg | Residual deficits, epilepsy |
| [4] | 5 | F | 10Mo | N/A | IgG | N/A | 10Y | Florid dyskinetic movement disorder. Episodes of fluctuating encephalopathy for ten years | IVIg | Recovery |
| [5] | 6 | F | 11Mo | IgG+IgM | IgG+IgM | N/A | 21D | Behavioural change, choreoathetosis, irritability, sleep disturbance | IVIg, Pred | Intractable epilepsy |
| [6] | 7 | F | 16Mo | IgG | IgG | N/A | 60D | Encephalopathy, movement | PLEX | Residual motor |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | disorder | | deficit |
| [6] | 8 | M | 2Y | IgG | IgG | N/A | 60D | Cognitive, behavioural and motor regression | IVIg | Recovery |
| [2] | 9 | F | 28Mo | IgG+IgM | IgG+IgM | N/A | 4Mo | Fever, diarrhea, agitation, insomnia, choreoathetosis | MP, IVIg, Ritux, Cycloph | Recovery |
| [4] | 10 | F | 3Y | N/A | IgG | N/A | 36D | Behavioural change, choreoathetosis, facial dyskinesia | MP, PLEX, MMF, Ritux | Recovery |
| [7] | 11 | M | “infant” | Positive, subtype N/A | N/A | N/A | 1Mo | Choreoathetosis, orofacial dyskinesia | IVIg, PLEX | Recovery |
| [3] | 12 | M | 7Y | IgG | IgG | N/A | 16D | Encephalopathy, chorea, dystonia, dysautonomia | MP, IVIg, Cycloph | Residual deficits |
| [4] | 13 | F | 15Y | N/A | IgG | N/A | 31D | Headaches, somnolence, weight loss, meningism | MP, Cyclospo rine | Recovery |
| [7] | 14 | M | “20s” | N/A | Positive, subtype N/A | N/A | N/A | Behavioural change | IVIg, Cycloph | Recovery |
| [8] | 15 | M | 24Y | IgG | IgG | N/A | 30D | No relapse | None | N/A |
| [2] | 16 | M | 24Y | IgG+IgM +IgA | IgG+IgM | N/A | 48D | Progressive mania, irritability, disorientation, memory dysfunction | MP, Pred | Recovery |

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|---|---|---|---|---|---|---|---|---|---|---|
| [8] | 17 | M | 31Y | IgA+IgM | IgA | N/A | 7D | No relapse | None | N/A |
| [2] | 18 | M | 41Y | IgG+IgM | IgG+IgM | N/A | 61D | Confusion, choreoathetosis/ seizures, autonomic and respiratory dysfunction | None | Recovery |
| [8] | 19 | F | 44Y | Negative | IgG | Nuclear HSV expression in several partly degenerated neurons, massive macrophage and moderate T-cell infiltration, predominantly CD8 +ve, only a few B cells | 5D | No relapse | None | Death |
| [2] | 20 | F | 45Y | IgG+IgM | N/A | N/A | 74D | Memory dysfunction, personality changes | N/A | Focal epilepsy |
| [8] | 21 | F | 46Y | IgG | IgG | N/A | 3102D | No relapse | None | N/A |
| [8] | 22 | M | 50Y | IgM | N/A | N/A | 7D | No relapse | None | N/A |
| [8] | 23 | M | 52Y | IgA | N/A | N/A | 5D | No relapse | None | N/A |
| [8] | 24 | M | 53Y | IgA+IgG +IgM | IgA+IgG+I gM | N/A | 9D | No relapse | None | N/A |
| [8] | 25 | F | 59Y | IgM | IgA+IgM | N/A | 7D | No relapse | None | N/A |

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| [8] | 26 | F | 59Y | IgA+IgM | Negative | N/A | 12D | No relapse | None | N/A |
| [8] | 27 | M | 62Y | IgA | IgA+IgM | N/A | 14D | No relapse | None | N/A |
| [8] | 28 | F | 64Y | IgG | IgA+IgG | N/A | 5D | No relapse | None | N/A |
| [8] | 29 | F | 66Y | Negative | IgA+IgM | N/A | 10D | No relapse | None | N/A |
| [8] | 30 | F | 79Y | IgA+IgM | N/A | N/A | 4D | No relapse | None | N/A |
| [2] | 31 | M | 82Y | Negative | IgG | N/A | 42D | Cognitive decline | N/A | N/A |
| [9] | 32 | N/A | N/A | N/A | IgG | N/A | N/A | No relapse | MP, IVIg, PLEX | Response to immune-therapy |
| [9] | 33 | N/A | N/A | N/A | IgG | N/A | N/A | No relapse | MP, IVIg, PLEX | Response to immune-therapy |

**Supplementary Table 1.**

Review of 33 patients with HSV type 1 encephalitis (PCR positive in CSF) with associated anti-NMDAR serum antibodies.

D, days; Mo, months; Y, years; M, male; F, female; NMDAR, *N*-methyl-D-aspartate receptor; CSF, cerebrospinal fluid; N/A, not available; HSV, herpes simplex virus; MP, methylprednisolone; IVIg, intravenous immunoglobulin; Cycloph, cyclophosphamide; Cyclosp, cyclosporine; PLEX, plasma exchange; MMF, mycophenolate mofetil; Ritux, rituximab; Pred, prednisolone.