**On-line Table 1: Patient characteristics**

| Patient | Age (yr) | Sex | Baseline mRS | Autoantibody | Clinical Features at Onset of Symptoms | Viral Prodrome | History of Autoimmune Disease | Malignancy | CSF WBC ($mm^3$) | CSF Protein (mg/dL) | Traumatic Lumbar Puncture | VGKC Titers (Reference Range, ≤0.02 nmol/L) | NMDA Serology (Reference Range, <1:10) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 61 | F | 0 | GABA-BR | Seizure, chest pain, shortness of breath | No | No | No | 11 | 33 | Yes | ≤0.02 | <1:10 |
| P2 | 63 | M | 0 | GAD65 | Malaise, seizure | No | No | No | 7 | 34 | No | 0 | <1:10 |
| P3 | 22 | F | 1 | GAD65 | Myalgias, chest pain | Yes | No | No | 12 | 60 | No | 0 | <1:10 |
| P4 | 44 | F | 0 | GAD65, ANA, SSA | Confusion, seizure | Yes | Yes | No | 9 | 47 | No | 0 | <1:10 |
| P5 | 22 | M | 0 | NMDA-R | Depression, suicidal ideation, violent behavior | No | No | No | 64 | 23 | No | 0 | ≤1:10, titers unknown |
| P6 | 27 | F | 0 | NMDA-R | Catatonia, anxiety, depression | No | No | No | 18 | 41 | Yes | ≤0.02 | <1:10 |
| P7 | 31 | F | 0 | NMDA-R | Confusion | Yes | No | Ovarian teratoma | 118 | 37 | No | 0 | 1:320 |
| P8 | 35 | F | 0 | VGKC complex | Anxiety | Yes | No | No | 2 | 34 | No | 2.8 | Not sent |
| P9 | 78 | F | 0 | VGKC-LGI1 | Confusion, pathologic spending, seizure | Yes | No | No | 1 | 33 | No | 0.735 | <1:10 |
| P10 | 26 | F | 0 | None | Seizure | Yes | No | No | 31 | 20 | No | 0 | <1:10 |
| P11 | 14 | F | 0 | None | Seizure | No | No | No | 4 | 140 | Yes | 0 | <1:10 |
| P12 | 56 | F | 0 | None | Seizure | Yes | No | No | 9 | 19 | No | 0 | <1:10 |

**Note:**—GAD65 indicates glutamic acid decarboxylase 65; GABA-BR, γ-aminobutyric acid B receptor; ANA, antinuclear antibody; SSA, Sjogren syndrome A antibody; WBC, white blood cell.

**On-line Table 2: Summary of imaging and EEG findings**

| Patient | FDG-PET 1 Findings | Therapy Received Prior to FDG-PET 1 (Doses) | EEG 1 Findings | MRI 1 Findings | FDG-PET 2 Findings | Therapy Received Prior to FDG-PET 2 (Doses) | MRI 2 Findings | MRI 3 Findings |
|---|---|---|---|---|---|---|---|---|
| P1 | HD 13: severe L amygdala and hippocampus hypermetabolism; mild R amygdala and hippocampal hypermetabolism; L cerebral cortical hypometabolism | None | HD 13: ISR L temporal | HD 11: L hippocampus and amygdala T2 hyperintensity and mild edema; diffuse cerebral edema | HD 62: L operculum hypermetabolism; L amygdala and hippocampus hypometabolism; bilateral frontal hypometabolism | IVMP × 4 | HD 1: L hippocampus and amygdala T2 hyperintensity and mild edema, diffuse cerebral edema resolved | HD 14: L hippocampus and amygdala T2 hyperintensity and atrophy |
| P2 | HD 11: B hippocampus, amygdala, and insula hypermetabolism | IVMP × 3 | HD 11: BIPLEDs, L > R frontal slowing, CSG | HD 0: normal | | | HD 11: B hippocampus and insula T2 hyperintensity | HD 47: resolution of hippocampus and insula T2 hyperintensity, diffuse atrophy |
| P3 | HD 47: medial dorsal frontal and parietal cortical hypermetabolism | IVMP × 5 with IVIG × 5 | | HD 0: normal | HD 56: resolution of frontal and parietal cortical hypermetabolism; subtle B hippocampus and amygdala hypermetabolism | IVMP × 5 with IVIG × 5 | HD 4: normal | HD 18: leptomeningeal enhancement |
| P4 | HD 36: marked L hippocampus hypermetabolism | None | HD 36: SWR L temporal, CSR L > R frontotemporal | HD 29: severe L and mild R hippocampus T2 hyperintensity | HD 250: normal | IVMP × 5 with IVIG × 5 | HD 47: L hippocampus mild T2 hyperintensity | HD 189: mild L hippocampus atrophy |
| P5 | HD 14: marked B occipital > parietal hypometabolism | Pentobarbital | HD 14: interictal CSG, IRSG, BS; ictal EEG seizure, generalized with mild arm stiffening | HD 7: normal | HD 26: diffuse hypometabolism; B inferolateral frontal hypermetabolism | Pentobarbital, PLEX × 2 | HD 12: normal | HD 42: mild diffuse atrophy |
| P6 | HD 20: marked B occipital and perirolandic hypometabolism | IVMP × 2 | HD 20: CSG, CRSG with increased $\beta$ activity overriding the high amplitude $\Delta$ slowing | HD 2: normal | | | HD 14: mild diffuse pachymeningeal thickening and enhancement | |
| P7 | HD 95: marked B occipital and perirolandic hypometabolism; mild B amygdala hypermetabolism | IVMP × 5, PLEX × 4, R oophorectomy, IVIG × 5, rituximab×2 | HD 95: CSG, IRSG maximum bifrontal | HD 0: diffuse leptomeningeal enhancement | HD 181: unchanged; marked B occipital and perirolandic hypometabolism; mild B amygdala hypermetabolism | IVMP × 5, PLEX × 4, R oophorectomy, IVIG × 5, rituximab × 2 | HD 24: resolution of leptomeningeal enhancement | HD 86: mild scattered SAH and/or superficial CVT; diffuse cerebral atrophy |
| P8 | HD 12: hypermetabolism in L > R striatum and anterior cingulate gyri; L globus pallidus hypermetabolism; marked L hippocampus hypermetabolism | IVMP × 4 | HD 12: interictal IRSG; ictal EEG seizure, regional left paracentral with head and R arm myoclonus | HD 1: L anterior cingulate, L striatum, L globus pallidus, L hippocampus T2 hyperintensity and edema | | | HD 78: L hippocampus and L caudate mild T2 hyperintensity | HD 415: L hippocampus atrophy |
| P9 | HD 20: diffuse cortical hypometabolism; B anterior temporal and mesial temporal hypermetabolism | Pentobarbital, IVMP × 5 with IVIG × 4 | HD 20: TWG, CSG | HD 15: R hippocampus head atrophy and T2 hyperintensity | | | HD 27: R hippocampus head atrophy and T2 hyperintensity | HD 29: R hippocampus head atrophy and T2 hyperintensity |
| P10 | HD 6: R frontal pole hypermetabolism | None | HD 6: interictal intermittent slow generalized and regional L and R temporal, IRSG; ictal EEG seizure non-localizable with lip smacking, numbness, and tingling | HD 4: normal | HD 1397: normal | IVMP × 3, R temporal lobectomy | HD 5: R frontal pole enhancement, T2 hyperintensity and edema | HD 45: resolution of R frontal pole enhancement, T2 hyperintensity and edema |
| P11 | HD 17: mild B amygdala and hippocampus hypermetabolism | IVMP × 5 with IVIG × 2 | HD 17: PPG maximum bifrontal, spike multiregional L and R hemisphere, spindle fragments, CSG | HD 0: normal | | | HD 5: normal | HD 17: pachymeningeal thickening and enhancement; cortical venous thrombosis |
| P12 | HD 17: L > R hippocampus and amygdala hypermetabolism | None | HD 17: PPG maximum bifrontal, CSG | HD 1: L amygdala and hippocampus mild T2 hyperintensity and edema | | | HD 9: B amygdala and hippocampus T2 hyperintensity and edema | HD 60: improved B amygdala and hippocampus T2 hyperintensity |

**Note:**—HD indicates hospital day; IVMP, intravenous methylprednisolone; IVIG, intravenous immunoglobulin; PLEX, plasmapheresis; ISR, intermittent slow regional; CSG, continuous slow generalized; CSR, continuous slow regional; SWR, sharp wave regional; CRSG, continuous rhythmic slow generalized; IRSG, intermittent rhythmic slow generalized; PPG, periodic pattern generalized; BIPLEDs, bilateral independent periodic lateralized epileptiform discharges; TWG, triphasic wave generalized; BS, burst suppression; L, left; R, right; B, bilateral; CVT, cerebral venous thrombosis.

**On-line Table 3: Treatment strategies and outcome**

| Patient | Length of Hospitalization (Days) | Symptom Onset to SE (Days) | Duration of SE (Days) | Maximum No. AED | Pentobarbital Coma (Days) | Tier 1 Therapy (Doses) | Tier 2 Therapy (Doses) | Symptom Onset to Therapy (Days) | Discharge Disposition | mRS at Hospital Discharge | Duration of Follow-Up (Days) | mRS at Last Follow-Up | Clinical Seizures at Follow-Up |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | 56, 44 | 0, 120 | 17, 5 | 6 | 5 | IVMP × 4, IVMP × 5 | None | 52 | SNF, death | 4 | 137 to death | 6 | Yes |
| P2 | 54 | 1 | 35 | 5 | 0 | IVMP × 3, IVIG × 2, PLEX × 5, IVMP × 5 | None | 7 | Home with full care | 4 | 63 | 2 | No |
| P3 | 64 | 5 | 36 | 7 | 34 | IVMP × 5 with IVIG × 5, PLEX × 5 | None | 10 | AR | 2 | None | | |
| P4 | 42 | 49 | 6 | 4 | 0 | IVMP × 5 with IVIG × 5 | None | 56 | Home | 3 | 1561 | 1 | Yes |
| P5 | 153 | 21 | 106 | 6 | 105 | PLEX × 5, IVMP × 5, IVMP × 3, PLEX × 5, IVIG × 5, PLEX × 5 | Rituximab × 2, cyclophosphamide | 31 | LTAC | 5 | 509 | 3 | No |
| P6 | 36 | 71 | 12 | 5 | 2, then transfer | IVMP × 6, IVIG × 5, PLEX × 5 | Rituximab × 3 | 64 | ICU transfer | 5 | None | | |
| P7 | 199 | 40 | 90 | 5 | No | IVMP × 5, PLEX × 4, IVIG × 5 | Rituximab × 2 | 10 | LTAC | 5 | None | | |
| P8 | 30 | 62 | 3 | 5 | No | IVMP × 4 | None | 53 | Home | 2 | 839 | 1 | Yes |
| P9 | 45 | 14 | 8 | 4 | 8 | IVMP × 5 with IVIG × 4, PLEX × 5 | Long-term IVIG | 19 | LTAC | 4 | 364 | 0 | No |
| P10 | 19 | 12 | 11 | 6 | 0 | IVMP × 3 | None | 24 | AR | 3 | 1827 | 1 | Yes |
| P11 | 52 | 0 | 17 | 4 | 11 | IVMP × 5 with IVIG × 2, IVMP × 2 with IVIG × 2 | Long-term IVIG with IVMP, oral steroids | 10 | AR | 2 | 655 | 1 | Yes |
| P12 | 26 | 7 | 3 | 4 | No | IVMP × 5, PLEX × 5 | None | 18 | LTAC | 5 | 89 | 3 | No |

**Note:**—SE indicates status epilepticus; SNF, skilled nursing facility; LTAC, long-term acute care; AR, acute rehabilitation; ICU, intensive care unit; AED, antiepileptic drug; IVMP, intravenous methylprednisolone; IVIG, intravenous immunoglobulin; PLEX, plasmapheresis.