### Table 1: Subgroup descriptions.

| Description                                                                 | N     | (%)  | Description                                                                 | N     | (%)  |
|----------------------------------------------------------------------------|-------|------|----------------------------------------------------------------------------|-------|------|
| Abs against neuronal cell surface antigens (N=35)*                        |       |      | Abs against neuronal intracellular antigens (N=9)                          |       |      |
| Probable Hashimoto encephalopathy (N=14)                                  |       |      | Seronegative potential psychiatric autoimmune syndromes based on MRI, CSF/EEG findings or therapy (N=33) |       |      |
| **Statistics**                                                            |       |      | F=1.074, p=0.365                                                            |       |      |
| **Age**                                                                   | 37.79±16.85 | 36.33±19.02 | 45.07±14.72 | 42.56±14.79 |       |      |
| **Sex (female:male)**                                                     | 57% (20):43% (15) | 44% (4):56% (5) | 93% (13):7% (1) | 45% (15):55% (18) |       |      |
| **Syndromes**                                                             |       |      | **Chi²=9.725, p=0.021**                                                     |       |      |
| Paranoid-hallucinatory                                                   | 57% (20/35) | 44% (4/9) | 64% (9/9) | 45% (15/33) |       |      |
| Depressive                                                                | 11% (14/35) | 33% (3/9) | 14% (2/14) | 36% (12/33) |       |      |
| Manic                                                                    | 6% (2/35) | 11% (1/9) | 7% (1/14) | 0% (0/33) |       |      |
| Dementing/cognitive dysfunction                                           | 14% (5/35) | 0% (0/9) | 7% (1/14) | 9% (3/33) |       |      |
| Confusional/delirious                                                    | 3% (1/35) | 0% (0/9) | 7% (1/14) | 9% (3/33) |       |      |
| Personality change                                                        | 6% (2/35) | 0% (0/9) | 0% (0/14) | 0% (0/33) |       |      |
| Other                                                                    | 3% (1/35) | 11% (1/9) | 0% (0/14) | 0% (0/33) |       |      |
| **Diagnostic alterations**                                                |       |      | **Chi²=20.187, p=0.322**                                                   |       |      |
| MRI                                                                      | 55% (18/33) | 33% (3/9) | 60% (9/15) | 61% (20/33) |       |      |
| EEG                                                                      | 43% (12/28) | 50% (4/8) | 40% (4/10) | 34% (10/29) |       |      |
| FDG-PET                                                                  | 50% (6/12) | 50% (2/4) | 100% (2/2) | 56% (5/9) |       |      |
| CSF overall                                                              | 72% (23/32) | 56% (5/9) | 54% (7/13) | 97% (31/32) |       |      |
| CSF inflammatory changes**                                               | 59% (19/32) | 22% (2/9) | 15% (2/13) | 72% (23/32) |       |      |
| **Immunomodulatory treatment**                                           |       |      | **Chi²=15.017, p=0.001**                                                   |       |      |
| Overall improvement                                                      | 77% (20/26) | 67% (2/3) | 100% (14/14) | 80% (12/15) |       |      |

*Including patients with not well-characterized neuronal autoantibodies against neuronal cell surface antigens such as anti-glycine autoantibodies or novel neuronal autoantibodies on tissue tests. **Inflammatory CSF changes were defined as increased CSF white blood cell count and/or CSF specific oligoclonal bands. Abbreviation: Abs, autoantibodies; Ab, autoantibody; CSF, cerebrospinal fluid; EEG, electroencephalography; FDG-PET, [18F]fluorodeoxyglucose positron emission tomography; MRI, magnetic resonance imaging.