

Clinical features in 104 patients investigated for potential autoimmune encephalitis at a London teaching hospital after presenting with psychotic symptoms

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Aims

- Autoimmune encephalitis (AE) can present with psychotic features. Unlike primary psychosis the mainstay of treatment is immunotherapy.
- Whilst clinician consensus-derived criteria for diagnosing various sub-types of autoimmune encephalitis exist, there is a need for observational data of clinical populations.
- The primary aim of this retrospective cohort study was to describe characteristics and diagnostic outcomes of patients presenting with psychosis to a general hospital who were seen by the inpatient neurology team and investigated for potential AE.
- The secondary aim of this study was to evaluate which clinical symptoms and features may help differentiate between autoimmune psychosis and primary psychiatric causes of psychosis.

Methods

- Electronic patient records were used to identify patients who had presented with psychosis to a London teaching hospital, were reviewed by neurology, and in whom the diagnosis of autoimmune encephalitis had been considered.
- Data were collected on clinical features, admission length, investigation results, antibody results, whether immunotherapy was given, whether response was seen to immunotherapy, and final diagnosis.
- A diagnosis of AE was defined as meeting the Graus criteria for either definite NMDA receptor encephalitis, or definite autoimmune limbic encephalitis (Graus et al., Lancet Neurol. 2016;15(4):391-404).
- Clinical features were compared between AE (meeting definite criteria) and all other causes of psychosis. Patients with a likely diagnosis of AE (but not meeting definite criteria) were excluded from analyses.
- Anonymized data were analysed using SPSS28. Subgroup comparisons for categorical variables were conducted using Pearson's χ^2 test.

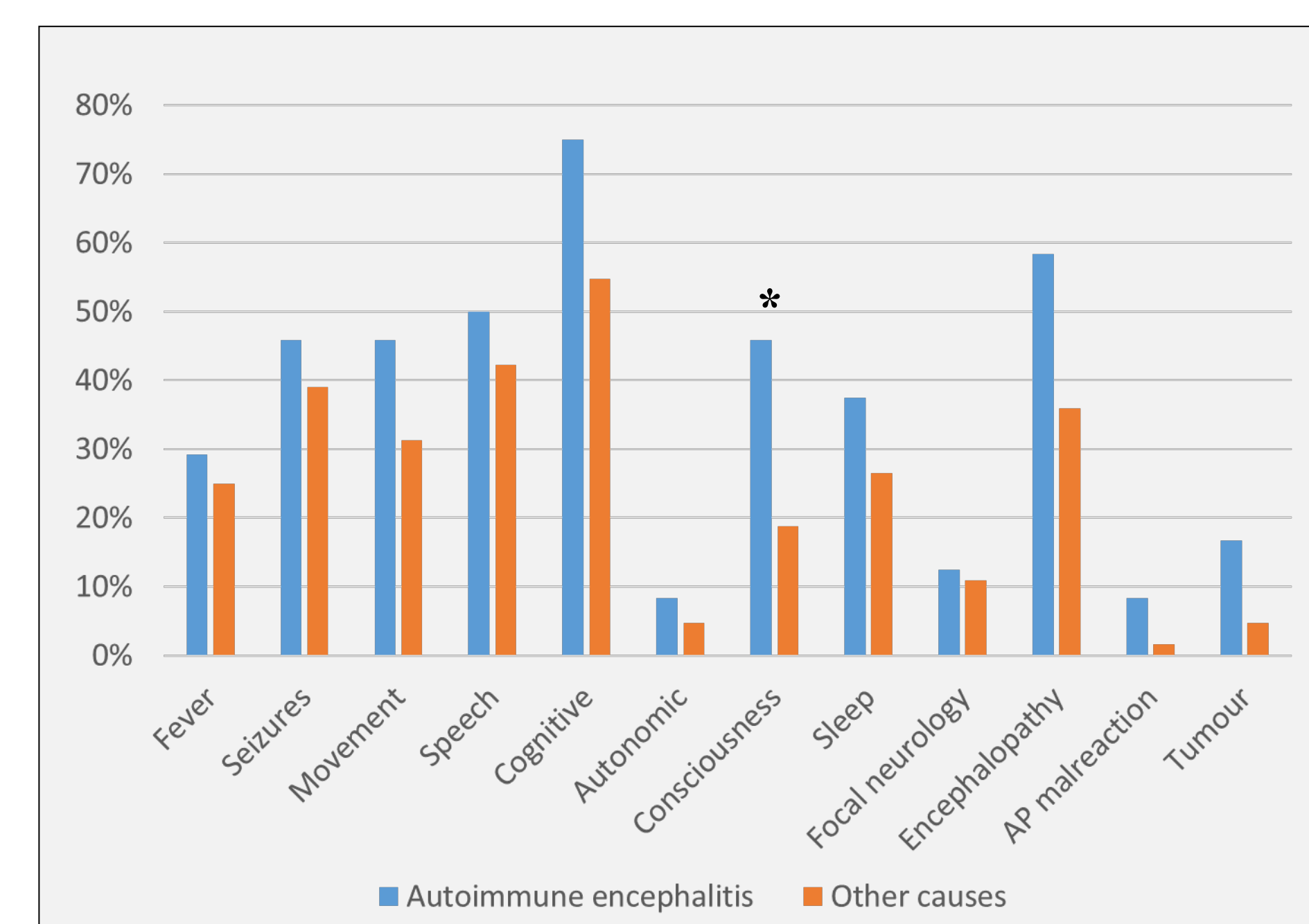


Figure 2: Percentage frequency of clinical feature and symptom sub-groups in patients with definite autoimmune encephalitis (n=24), compared with those in patients with other causes of psychosis (n=64) (AP = antipsychotic, * = P<0.05)

Results

- 104 suitable patients were identified as having presented with psychotic symptoms and undergone investigation for AE.
- Year of presentation ranged from 2010 – 2021. 24 were found to have AE with the most common subtype being NMDA receptor encephalitis (N=14), followed by VGKC encephalitis (N=5), and anti-GAD encephalitis (N=2).
- 80 had psychosis due to other causes, most commonly: primary psychiatric disorders (N=24), suspected AE not meeting definite criteria (N=16), infectious (N=9), and neurodegenerative (N=7).
- Impaired consciousness (p=0.010) was found to be significantly more common in the AE group compared to the non-AE group (excluding suspected but not definite AE). No significant difference in frequency of seizures, speech symptoms, sleep disruption, movement disorders, cognitive dysfunction, autonomic dysregulation, focal neurology, encephalopathy, adverse reaction to antipsychotics, and current/recent tumour was observed.
- Focused comparison of patients with AE and those with primary psychiatric disorders found significant difference in frequency of impaired cognition (p=0.009) and encephalopathy (p=0.007).

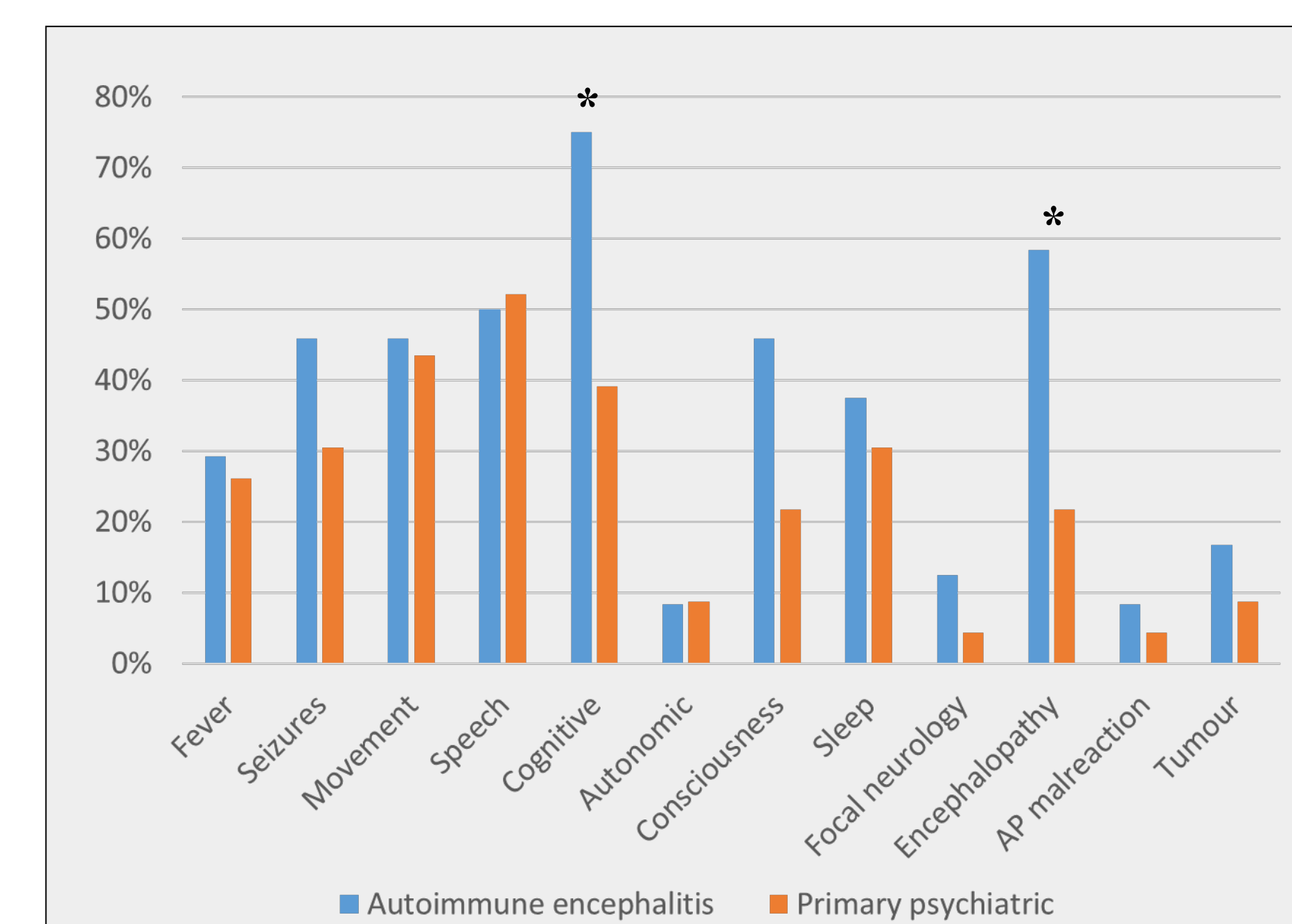


Figure 3: Percentage frequency of clinical feature and symptom sub-groups in patients with definite autoimmune encephalitis (n=24), compared with those in patients with primary psychiatric causes of psychosis (n=24) (AP = antipsychotic, * = P<0.05)



Conclusions

- Impaired consciousness is seen more frequently in AE compared to other causes of psychosis. In combination with other clinical features this may lend support to a potential diagnosis of AE.
- Limitations include selection bias from patient screening, and observer bias from medical record retrospective review.
- There is a need for future prospective longitudinal studies to guide development of clinical guidelines for the detection of AE presenting with psychotic symptoms.

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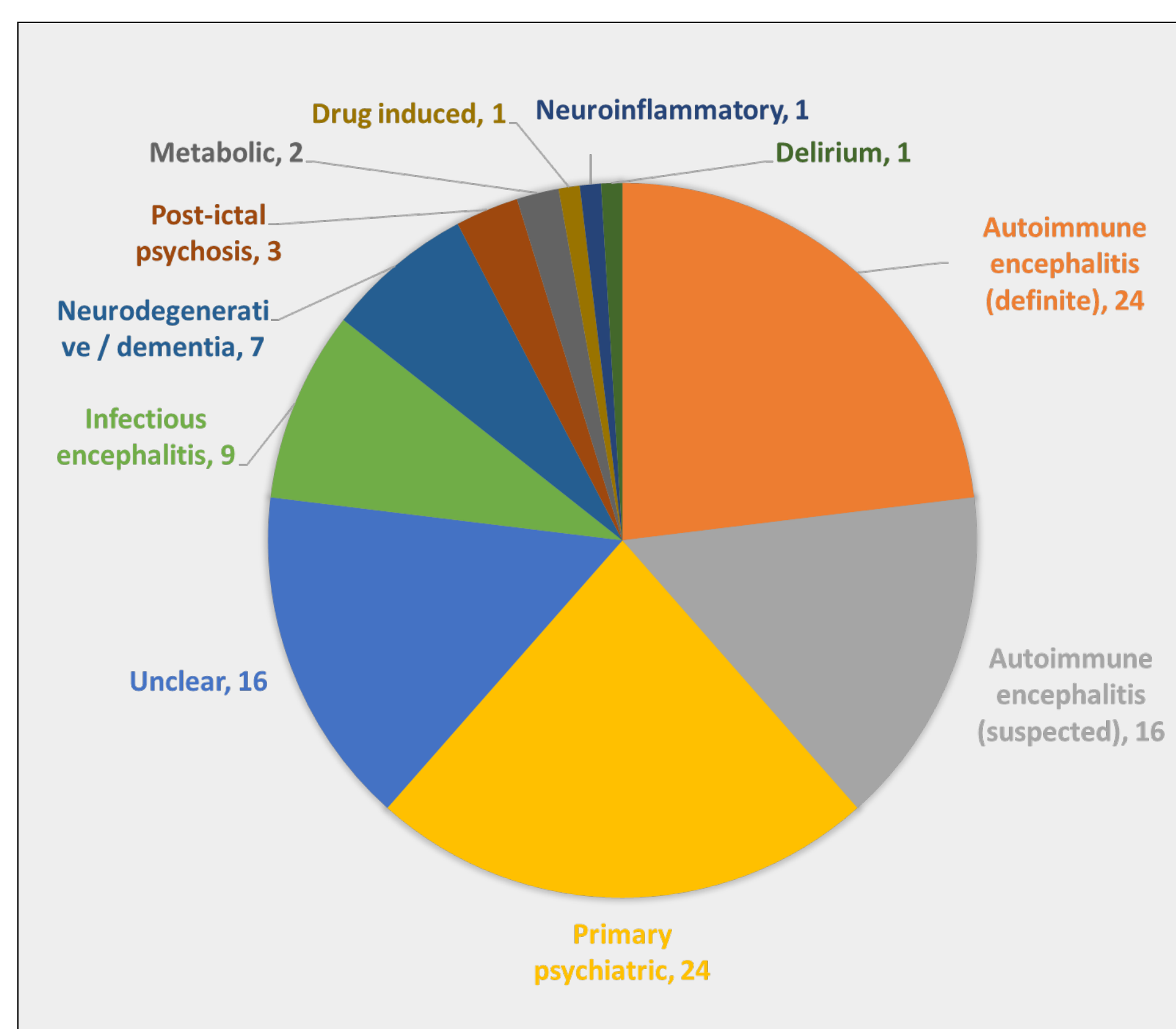


Figure 1: Recorded diagnoses in 104 patients presenting with psychosis who were investigated for potential autoimmune encephalitis