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Autoantibody response may be a function of the number of viable glycoprotein HP-10, suggesting that the level of stimulation of the autoantibody response may be a function of the number of viable parasites.

Conclusions

Patients with suspected encephalitis need specialised multidisciplinary input, to ensure all possible differential diagnoses are considered. This facility is invaluable to physicians managing complex, unwell patients, including providing access and suggestions to novel diagnostics and therapies, and should be made available more widely. International cooperation by virtual technology should be encouraged.

doi:10.1016/j.jns.2021.117801

117802

Anti-brain protein autoantibodies in parenchymal neurocysticercosis

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Background and aims

Neurocysticercosis (NC) is the most common parasite infection of the CNS worldwide, and a main cause of seizures and epilepsy in endemic countries. The objective of this work has been to screen for the presence of autoantibodies to brain proteins in the cerebrospinal fluid (CSF) of clinically defined NC patients, representative of the two main clinical forms of NC, extraparenchymal (EP-NC) and parenchymal (P-NC) invasion.

Methods

Cerebrospinal fluid (CSF) samples were taken from 21 patients with NC and from 15 control neurological patients diagnosed as NC negative, were collected from January 2015 to February 2016. Both control and experimental CSF were assayed in the HP10 Ag which detects a secreted glycoprotein of viable metacestodes.

Results

There was striking correlation between the level of autoantibodies and the levels of the secreted metacestod glycoprotein HP-10, suggesting that the level of stimulation of the autoantibody response may be a function of the number of viable parasites.

Conclusions

The ENCOVID European registry included patients with probable or definite diagnosis of encephalitis with and without SARS-CoV-2 infection admitted for hospitalization in the European recruiting centers between February 1st 2020 and March 30th, 2021. Each patient underwent a standardized assessment including full infectious screening, CSF, EEG, MRI data. Clinical presentation and laboratory markers, severity of COVID-19 disease, response to treatment and outcomes were recorded.

Results

Out of 155 cases screened, forty-five cases of encephalitis positive for SARS-CoV-2 infection and 63 without COVID-19 with full available data were included. SARS-CoV-2 encephalitis exhibited common presentation with aphasia and dysarthria compared to non-COVID-19 encephalitis.

doi:10.1016/j.jns.2021.117802
higher prevalence of patients with normal MRI but mild hyperproteinorracchia/pleocytosis. Most SARS-CoV-2 cases appeared during the onset of COVID-19 and exhibited different response to treatment and long-term outcomes compared to non COVID encephalitis.

Conclusions

Conclusions –The registry identified a wide spectrum of encephalitis associated with COVID19 infection, with characteristic clinical features and course different from classical infectious and autoimmune encephalitis. Biomarkers studies are warranted in order to evaluate the specific inflammatory pathways associated with SARS-Cov-2 encephalitis.

doi:10.1016/j.jns.2021.117803

117804 Neurological disorders associated with COVID-19 infection: An Italian multi-center cohort study (NEURO-COVID)

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117805 Brainstem involvement in COVID-19: A neuropathological and neurophysiologically study

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Background and aims

Whilst respiratory failure in COVID-19 arises from severe interstitial lung involvement, SARS-CoV-2 likely spreads also through the nervous system in a prion-like way, possibly reaching respiratory centers in the brainstem. Here, we evaluated neuropathologically, neurophysiologically and clinically the brainstem involvement in COVID-19.

Methods

Neuropathological data were acquired from two patients died for COVID-19 and two patients COVID-19 negative; neuronal damage and the number of corpora amylacea (CA)/mm² were assessed. The expression of the “nuclear protein” of SARS-Cov-2 was also evaluated. To clarify whether neuropathological findings had a