



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

confusion in 86%, coma in 30%, delirium in 37.9% and alteration of personality traits in 27.6%. Epileptic seizures occurred in 74% of cases. One third of cases had hyperproteinorrachia, one third pleocytosis/hyperproteinorrachia, and remaining third had a normal CSF. PCR for SARS-CoV-2 was negative in all tested patients. EEG was altered in 82.7% of patients. Brain CT and MRI were normal in 9 patients, and among abnormal findings 9 patients had mesial temporal lesions, one of which confirmed with PET imaging. The course was favorable in 39.2% of patients, sequelae were few in 26.6% and moderate in 19.2%, while 20% of patients died.

Conclusions

The outcome tends to be worse in male patients. PCR negativity seems to confirm an autoimmune etiology more than a direct invasion of the virus. However, a temporal lobe involvement, detected in 30% of patients with COV-ENC, suggests usual sites of encephalitis due to herpes virus.

doi:10.1016/j.jns.2021.117788

117789

Metabolic signature of hyposmia after mild COVID-19: An [18]F-FDG-pet study

Matteo Pardini^{ab}, Isabella Donegani^c, Alberto Miceli^c, Matteo Bauckneht^c, Silvia Chiola^d, Michele Pennone^c, Cecilia Marini^c, Federico Massa^b, Stefano Raffa^c, Dario Arnaldi^b, Gianmario Sambuceti^c, Flavio Nobili^b, Silvia Morbelli^c, ^aIRCCS, Ospedale Policlinico San Martino, Department of Neurology, Genova, Italy, ^bUniversity of Genoa, Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (dinogmi), Genoa, Italy, ^cUniversity of Genoa and IRCCS Ospedale Policlinico San Martino, Department of Health Science (dissal), Genoa, Italy, ^dHumanitas Clinical and Research Center, Unit of Nuclear Medicine, Rozzano, Italy

Background and aims

Persistent hyposmia represents one of the most common neurological complications of coronavirus disease 2019 (COVID-19) due to SARS-CoV-2 infection. To date, however, its neural bases remain poorly understood.

Methods

Sixty-two patients (mean age 64 ± 10.5 years, range 35–79) underwent whole-body [18]F-FDG-PET including a dedicated brain acquisition following their recovery after SARS-Cov2 infection. Patients that previously required mechanic ventilation or showed severe respiratory distress syndrome due to SARS-CoV-2 infection were excluded given the potential independent effect of these clinical scenarios on brain metabolism. The presence of isolated persistent hyposmia was assessed with the smell diskettes olfaction test. Voxelwise analyses were used to compare hyposmic and non-hyposmic patients and controls (61 subjects, age 61.1 ± 11.1 years), as well as to correlate regional metabolism with quantitative performance at the olfaction test.

Results

Relative hypometabolism was demonstrated in bilateral parahippocampal and fusiform gyri and in left insula in hyposmic patients with respect to controls and in the orbitofrontal cortex in hyposmic patients compared to non-hyposmic patients. In the hyposmic group, quantitative performance at the olfaction test correlated with regional metabolism in the cingulate gyrus, in the bilateral thalami and in the right temporal gyrus.

Conclusions

Isolated persistent hyposmia after SARS-Cov2 infection without an history of severe respiratory distress is associated with significant metabolic alterations in regions beyond those involved in primary olfactory processing.

doi:10.1016/j.jns.2021.117789

117790

Effectiveness and safety of ocrelizumab in a real-world setting: A single center experience from southern italy

Tommaso Guerra, Francesca Caputo, Luca Bollo, Pietro Iaffaldano, Damiano Paolicelli, Maria Trojano, University of Bari Aldo Moro, Department of Basic Medical Sciences, Neurosciences and Sense Organs, Bari, Italy

Background and Aims

Ocrelizumab (OCZ) has been approved in 2018 in Italy for the treatment of patients with multiple sclerosis (MS), but real-world data about its use are limited. Aims: To evaluate effectiveness and safety of OCZ for primary progressive MS (PPMS), active secondary progressive (SPMS) and relapsing remitting MS (RRMS) patients recruited at the MS Center of Bari, Italy.

Methods

Patients with ≥ 3 infusions were retrospectively recruited. Clinical and demographic data were collected (Table 1). Wilcoxon paired test was used to evaluate the EDSS changes over time. We assessed relapse incidence after treatment start and adverse events (AE).

VARIABLE	RR	SP	PP
Female sex, n (%)	46 (61%)	8 (16%)	16 (46%)
Age at Ocrelizumab start, mean (SD), years	43.5 (20.5-69.6)	49.4 (26.3-57.4)	51.6 (33.6-68.6)
EDSS before start DMT, mean (SD)	4.0 (1.0-7.5)	6.5 (4.0-7.5)	5.5 (4.0-8.0)
Last EDSS recorded from Ocrelizumab start, mean (SD)	4.0 (1.0-8.0)	6.5 (4.5-7.5)	6.5 (4.5-8.0)
Disease duration, at Ocrelizumab start, mean (SD), years	12.9 (0.5-41.2)	21.2 (6.0-37.2)	8.0 (0.9-31.5)
Treatment duration, mean (SD), years	1.2 (1-3.2)	1.1 (1-2.7)	1.2 (1-3.1)

Results

Our cohort of 133 patients included 35 PPMS, 22 SPMS and 76 RRMS patients. The median (IQR) follow-up after the first DMT start were 2,09 (0,6-3,3), 1,8 (0,08-4,02), 1,63 (1,17-3,10) years for PPMS, RRMS and SPMS patients respectively. The last available EDSS after OCZ start significantly increased compared to the baseline values only in the PPMS group ($p = 0.01$), but it remained stable in SP and RR groups. No clinical relapses and no evidence of radiological activity were found in RRMS patients during follow up. AEs reported were mostly infusion-related reactions in all groups, 1 Dengue fever and 2 Herpes Zoster infections. Seven of our cases reported COVID-19 infection during pandemic, one of them died.

Conclusions

Our real-world data indicate that OCZ stabilized disability progression and disease activity in RR and SP patients. The safety profile was quite favorable in this cohort.

doi:10.1016/j.jns.2021.117790