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Differential diagnosis of cacosmia and dysgeusia in COVID-19 pandemic. Clinical case report

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Background and aims

Olfactory and gustatory dysfunctions were presented in a high percentage of COVID-19 cases. Most of them are represented by quantitative disorders. Qualitative alterations were established in a small proportion. During the Covid-19 pandemic, there is a need to make a differential diagnosis (DD) of olfactory and gustatory disorders.

Methods

Clinical case of a 64-year-old man presented with dairy food cacosmia and dysgeusia for the last two weeks, and night sweats. From medical history we found that our patient recovered from COVID-19 infection, one month ago.

Results

Based on some studies, patients with COVID-19 infection, presented moderate to severe olfactory or gustatory dysfunctions for long-term, in convalescent period. It's important to make a DD of smell and taste impairements and choose the necessary treatment. Esophageal candidiasis was diagnosed in our patient. After 21 days of antifungal treatment cacosmia and dysgeusia disappeared. HIV test was negative. Some studies presented that COVID-19 infection is linked with a continuous reduction in lymphocytes along the disease. We hypothesized that immunodeficiency in COVID-19 infection and antibiotic therapy could be the trigger for esophageal candidiasis in our case.

Conclusions

Our case report highlighted the importance of smell and taste disorders DD, in COVID-19 pandemic. Dairy food cacosmia and dysgeusia can be a sign of esophageal candidiasis. That's why, convalescent COVID-19 infection patients should be monitored for a long-term period.

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Covid-19 related ataxia and myoclonus: Para- or post-infectious disorder?

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Background and aims

Since the onset COVID-19 pandemic, several post-infectious neurological disorders have been reported, among which at least ten cases showed movement disorders consisting of tremor, myoclonus, ataxia. We report a case series of three patients who developed these symptoms after the SARS-CoV-2 infection. Methods

Patients' data were collected from medical records during COVID 19 pandemic. Diagnosis of COVID-19 was supported by RT-PCR on nasopharyngeal swab.

Results

Three male patients (mean age 63 years) developed generalized myoclonus and ataxia. In two patients the disorder appeared 30 and 24 days after the onset of the SARS-CoV-2 infection, respectively, while in the other case the neurological symptoms began at the same time. The clinical pictures showed a rapidly worsening course. Brain MRI did not reveal abnormalities in any patients at the disease onset. On day 70 the imaging control showed mild cerebellar atrophy in one patient. A brain^rF-FDG-PET scan disclosed a bilateral frontomesial hypometabolic pattern in one patient. RT-PCR for SARS-CoV-2 in CSF, tested in two cases, resulted negative. EEG and ENG did not reveal relevant abnormalities, as well as CSF analysis, including immunoblot. Two patients were treated with intravenous immunoglobulin infusion (IVIg) and one patient with plasmapheresis (PEX). They subsequently improved during the course of few weeks.

Conclusions

Myoclonus and ataxia possibly occur as COVID 19 postinfectious as well as parainfectious immune-mediated disorder. Indeed, IVIG or PEX were effective in all three patients. This kind of disorders have been described as postinfectious events, in contrast, we report, to our knowledge, the first parainfectious case.

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A case of limbic encephalitis with CSF detection of sars-cov2 virus: Immune-mediated mechanism or direct viral damage?

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Background and aims

Pathogenesis of neurologic syndromes COVID 19-related could be categorized in four mechanisms: direct viral damage, para/post-infectious effect, complications of prolonged illness. We present a case of limbic encephalitis (LE) with concurrent detection of SARS-CoV2 virus in cerebrospinal fluid (CSF), which makes the individuation of a unique etiological mechanism insidious. Methods

A 70-year-old man was hospitalized with respiratory symptoms and confusional state. A chest CT-scan and nasopharyngeal swab demonstrated COVID-19 infection; non contrast brain CT-scan was unremarkable. Neurological examination revealed right focal signs and vigilance fluctuations; EEG showed nonspecific mild background activity slowing, basic CSF investigations resulted negative and totalbody CT-scan excluded tumours. Brain MRI showed T2-FLAIR hyper intensity in the mesial temporal lobes, strongly supporting the hypothesis of limbic encephalitis. So the patient underwent to a second lumbar puncture to test the autoimmune panel (negative).

ANTICORPO	SIERO	LIQUOR
Anti-Hu	Negativo	Negativo
Anti-Yo	Negativo	Negativo
Anti-Ri	Negativo	Negativo
Anti-Tr(DNER)	Negativo	Negativo
Anti-GAD65	Negativo	Negativo
Anti-ZIC4	Negativo	Negativo
Anti-titina	Negativo	Negativo
Anti-SOX1	Negativo	Negativo
Anti-recoverina	Negativo	Negativo
Anti-PNMA2	Negativo	Negativo
Anti-CV2	Negativo	Negativo
Anti-amfifisina	Negativo	Negativo
Anti-NMDA	Negativo	Negativo
Anti-AMPA1	Negativo	Negativo
Anti-AMPA2	Negativo	Negativo
Anti-GABA-R	Negativo	Negativo
Anti-CASPR2	Negativo	Negativo
Anti-LGI1	Negativo	Negativo



Results

Liquoral PCR for SARS-CoV2 RNA resulted positive. After treatment with 5 days- IV bolus dose of metilprednisolone and a cycle of IV immunoglobulin therapy, he had a slight improvement, especially concerning alertness and cognition. Two months follow-up brain MRI was superimposable to the precedent.Conclusions

Majority of cases of LE with positive testing for specific antibodies are negative for RT-PCR for SARS-CoV2 tested on LCR (1). In this case, the presence of the virus in CSF supports a direct neural damage; conversely, the answer to immunomodulant treatment could suggest



an immunological role; previous autopsy results of patients with SARS-COV1 (2) evidenced the presence of viral RNA in brain tissue, particularly accumulating in and around the hippocampus. 1. Lerzan Dogana, Dilaver Kayab, Tugce Sarikayaa, Rehile Zenginc, Alp Dincerd, et al. Plasmapheresis treatment in COVID19 related autoimmune meningoencephalitis: Case series. Brain, Behavior, and Immunity 87 (2020) 155–158 2. Gu J, Gong E, Zhang B, et al. Multiple organ infection and the pathogenesis of SARS. J Exp Med. 2005; 202: 415–424.

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Complications in the maxillofacial region in patients with COVID-19

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Background and aims

In addition to the problems it causes in the acute phase, coronavirus infection is bothering physicians and scientists worldwide with its complex complications. Aim: To analyze the complications and clinical manifestations observed in the maxilla-facial area of patients who have undergone Covid-19.

Methods

Clinical analysis was carried out in 67 patients who visited to the multidisciplinary clinic of Tashkent Medical Academy for 6 months. The mean age of patients was 61 ± 2.3 years, including 38 women (56,7%) and 29 men (43,3%). Patients were hospitalized 1–3 months after the onset of acute Covid-19 infection. The analysis was based on patients' clinical status, medical history, complaints, and diagnosis. Results

Mild complication observed in patients: acute aphthous stomatitis developed in 12 (17.9%) patients, in 29 (43.2%) patients inflammatory infectious complications (abscess, phlegmon) in the soft tissues developed independently. Inflammation of salivary glands was found in 7 (10.4%) patients, 36 patients (53.7%) had osteomyelitis of the maxilla (im.1), 37 patients (55%) were