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Background and aims
Telemedicine for routinary multiple sclerosis follow-up during SARS-CoV2 pandemic: A single center experience

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Methods
During the first lockdown phase (March–May 2020) all the pre-planned consults were converted in teleconsults. The evaluation focused on new symptoms or worsening of known symptoms, disability (PDDS), patients’ satisfaction of such assessment modality (rated form 0 to 10). Patients were then re-evaluated in person within 6 months. We verified the changes in disability and the accuracy of teleconsults in diagnosing relapses and rating progression.

Results
Eighty-four patients underwent teleconsult and were re-evaluated in person within 6 months after the lockdown (69% female, mean age 50.5 ± 11.0 y, mean disease duration 13.0 ± 9.7 y 78.6% relapsing-remitting disease form, 76.2% on disease modifying treatment). Median pre-lockdown EDSS was 1.5 (range 0–8); median EDSS post-lockdown was 2 (1–8) (p = 0.836); median PDDS during lockdown was 1.5 (0–8). A single disease relapse was detected with teleconsults. In the post-lockdown in person evaluation no additional undiagnosed relapses were detected. Patients’ reported satisfaction was very high (median 10, range 8–10).

Conclusions
Teleconsult in MS patients allowed us to guarantee a regular neurological follow-up during pandemic lockdown. No unreported relapses were missed, no significant disability changes were reported nor detected compared to pre-lockdown evaluation. Finally, patients’ satisfaction of this modality was very high.

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119834
The probability of neurocognitive disorders in patients at the postcovid stage

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Background and aims
Авкупальность постгоспитальных расстройств у больных обусловлена отсутствием данных о механизмах возникновения нейрокогнитивных расстройств.

Methods
Material and methods of research. We examined 22 people who had suffered from COVID-19, which made up two groups. The first main group – 10 patients with clinical signs of mild cognitive impairment (LCN), the second comparative group-12 patients without clinical signs of LCN. To detect LCN, neuropsychological tests MMSE were used, tests were performed: “establishing patterns”, visual-spatial function, semantic mediation and generalization. In the comparative analysis, the nonparametric criterion $\chi^2$ was used, based on the null hypothesis that there are no differences between the compared groups.

Results
The results obtained. If in group 2 there was a positive dynamics of cognitive functions of patients in the form of a statistically significant ($p < 0.05$) increase in the number of correctly completed tasks on the MMSE test on average $27.9 \pm 1.3$, $D = 10.3$; $p < 0.05$, “$+\$” 2.6 points, then in group 1 there was no positive dynamics ($p < 0.05$). In group 2, there is an increase in words called in one repetition, averaging 1.3 words (20.3%), while in group 1 patients there is a negative trend ($p < 0.05$). In the “digit repetition test”, the increase in the total score of reproduced digits both in the forward
order (+2.2 points, 5.0% in contrast to the patients of group 1) and in the reverse order (+3.2 points, 8.5% in contrast to group 1) was significant (p < 0.05). The “Complex figure” revealed a significant (p < 0.05) decrease in the time spent on the task in patients of group 2 (−6.3 s, 10.5% compared to group 1; p < 0.05).

Conclusions
Thus, Covid-19 causes LCN in patients in at least 50% of cases.

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119835
Impact on air pollution in Delhi and incidence of stroke in lieu of COVID-19 lockdown

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Background and aims
Exposure to air pollution is now well recognized by scientists, media and the population as a major public health issue. The Delhi air flux is the most pernicious consequences of indiscriminate industrialisation and urbanisation. The significant improvement in the air quality of Delhi region was observed due to strict implementation of lockdown. During the lockdown period, improvement in ambient air quality helped us in circumventing the coronavirus community spread.

Methods
Cross Sectional Study was designed. All strokes within 2 weeks from onset & within one year of event were screened & recruited. PM 2.5 was measured in areas of Delhi in using the help of DCPCB. Incidence of recurrent stroke was assessed during the covid-19 lockdown period. Stroke severity was calculated on the basis of NIHSS, mRS scale.

Results
50 patients recruited. Out of them 6 patients had recurrent stroke (min-3 & Max-6) in last one year. The mean age for patients was 52.3 ± 11.2 years with a mean NIHSS of 5.86 ± 1.3 and mean mRS of 1.04 ± 0.07. The higher level of PM 2.5 was 230 and minimum was 65 during the Covid-19 Lockdown period i.e March-May-2020. We found that the higher level of PM 2.5 is associated with incidence of Stroke. Maximum six recurrent attack reported by single patient when PM 2.5 level was ≥650 from October 2019-January 2020. 2 patients with history of severe RHD reported recurrent attack during the lockdown period.

Conclusions
Increased level of air pollution particles matter effects on brain and increased the recurrent incidence of stroke. PM 2.5 decreased during the lockdown period and less recurrent stroke reported at same time.

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119836
Post COVID-19 neurological manifestations – Retrospective study from a tertiary care hospital, India

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Background and aims
The present pandemic caused by the Novel Coronavirus 2 (SARS-CoV-2) is predominantly but not restricted to respiratory illness. Neurological complications in the acute phase have been well characterized like Encephalopathy, psychosis, stroke but there is paucity of data about post COVID presentations. We aim to study the various neurological syndromes seen in COVID-19 patients following discharge.

Methods
From July 2020 to December 2020, 1150 Laboratory confirmed COVID-19 cases were admitted and treated in a tertiary care hospital. Patients who developed Neurological syndromes after discharge and within 6 weeks were studied.

Results
During the follow-up period, A total of 1150 COVID-19 positive patients treated in the IP department. Out of these 10 patients with severe ARDS requiring ventilator died, one patient died of MI, 5 people bedridden at discharge. Among the survivors a total of 19 (1.6%) Patients presented with neurological complaints within 6 weeks of discharge. Of these Ischemic Stroke – 2 cases, Hemorrhagic Stroke-1, ADEM-1, Optic neuritis – 2, Epilepsy-1, GB syndrome-1, Persistent Headache-2, Bell’s Palsy-1, Sensorineuronal deafness – 2, Severe fatigue-3, Myalgias-2, Severe vertigo-1. There were 12 Male and 7 Female, age ranged from 40 years to 65 years (Median – 54 years), Co-mobilities: Diabetes – 12, Hypertension – 7.

Conclusions
SARS-CoV2 infection can cause neurological complications in both acute phase as well as in the follow up period. The pathophysiology need to be studied to plan for the management and prevention of these disabling neurological syndromes.

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119837
Pathomorphological changes of the brain in patients with COVID-19

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Background and aims
COVID-19 is a global disease and was characterized as a pandemic by the WHO and the coronavirus is caused also damage nervous system. The aim of this study was to investigate the brain tissue of patients who died from COVID-19.

Methods
We investigated the brains of 15 patients who died from complications of COVID-19. All patients had a positive test for SARS-CoV-2. Information from the autopsy protocol included macroscopic and microscopic characteristics of brain and general autopsy findings. We used immunohistochemistry staining for astrocytes, microglia and T-lymphocytes in the cortex, basal ganglia, brainstem and cerebellum.

Results
All patients died in hospitals and had a median age of 65 years (range, 47–80 years), 66.7% male and 33.3% women. Cause of death of most cases was viral pneumonia as the underlying condition. Neuromorphological studies showed fresh ischemic infarction in three (20%) patients with focal encephalolysis. Hypoxic...