



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.

119886**COVID-19 and dementia: Recommendations from the Italian dementia national plan working group**

Marco Canevelli^{ab}, Ilaria Bacigalupo^b, Giulia Remoli^b, Emanuela Salvi^c, Teresa Di Fiandra^d, Nicola Vanacore^b, ^a*Sapienza University of Rome, Department of Human Neurosciences, Rome, Italy*, ^b*National Institute of Health, National Center for Disease Prevention and Health Promotion, Rome, Italy*, ^c*National Institute of Health, Pharmacoepidemiology Unit, National Centre for Drug Research and Evaluation, Rome, Italy*, ^d*Ministry of Health, General Directorate for Health Prevention, Rome, Italy*

Background and aims

Worldwide, about a fifth of those who died with COVID-19 were affected by dementia. A high number of excess deaths among people with dementia living in Italy was documented during the first wave of the epidemic. Based on such data, the Italian Dementia National Plan Working Group produced a report addressed to caregivers and healthcare professionals for the management and support of patients with dementia during the pandemic.

Methods

Between September and October 2020, 11 online meetings were organized by the members of the Working Group. Documents produced by national and international Organizations were collected and analyzed together with the specific scientific literature on dementia and COVID-19. After reaching a consensus, recommendations for different health care settings were provided.

Results

The report is structured into four sections: 1) reorganization of clinical and social care activities (e.g. swab execution procedures, management of behavioral disorders, accessibility to invasive treatments); 2) assistance in home settings; 3) care and support in day centers and residential structures (e.g. management of group activities in full safety, visits by family members); 4) training for health and social personnel (e.g. training on frequent atypical presentation of COVID-19 like delirium). The report "Interim guidance for the appropriate support of people with dementia in the current COVID-19 pandemic scenario" was sent to 4,609 representatives of outpatient dementia care services. Additional videos and iconographic materials were released to improve the diffusion of the main contents (<https://www.epicentro.iss.it/demenza/demenze-covid19-report-ISS-2020>).

Conclusions

The impact of the report will be assessed throughout the pandemic with dedicated initiatives.

doi:[10.1016/j.jns.2021.119886](https://doi.org/10.1016/j.jns.2021.119886)

119887**Longitudinal-transvers myelitis in asymptomatic COVID-19 convalescent**

Piotr Błaszak, Agnieszka Witowska, Robert Bonek, *Regional Specialistic Hospital in Grudziadz, Neurology and Neuroimmunology, Grudziadz, Poland*

Background and aims

There is a wide variety of viruses that can predispose to longitudinal-transvers myelitis in humans and COVID-19 seems to be no different. Here we would like to present the case of a 45-year-old male, COVID-19 convalescent, with family history of sclerosis

multiplex. He was admitted to the Department of Neurology and Neuroimmunology in late October 2020 after being hospitalized on Internal Diseases ward due to urine congestion, constipation and progressive lower limbs palsy.

Methods

A series of tests and imaging studies led to the diagnosis of longitudinal-transvers myelitis of undetermined cause. We run cerebrospinal fluid and serology tests to search for immune background, however we have not found any specific antibodies present nor any other typical cause. The patient denied any COVID-19 related symptoms in recent past, and he had no record of positive COVID-19 PCR test. We run another blood test to determine whether had he underwent COVID-19 infection asymptotically. The man turned out to be seropositive for anti-SARS-CoV-2 and anti-SARS-CoV-2 IgG antibodies that confirmed our suspection. We introduced treatment with steroids after which neurologic symptoms subsided.

Results

There are known cases of myelitis in COVID-19 patients and convalescents, however, there usually is a history of previously detected and symptomatic infection and myelitis onset begins between day 7–10 after first COVID-19 symptoms.

Conclusions

In present era it would seem to be crucial to screen patients with myelitis for anti-SARS-CoV-2 seropositivity.

doi:[10.1016/j.jns.2021.119887](https://doi.org/10.1016/j.jns.2021.119887)

119888**The risk of coronavirus disease (COVID-19) transmission to health workers in the neurology medical service at Dr. Cipto Mangunkusumo National Hospital, Jakarta**

Ahmad Yanuar Safri, Riwanti Estiasari, Kartika Maharani, Astri Budikayanti, Ediva Pradiptaloka, Jovita Stephanie, Darma Imran, July Kumalati, *University of Indonesia, Neurology, Jakarta, Indonesia*

Background and aims

Background and Aims COVID-19 transmission in the hospital environment is a serious threat to the patients and health or non-healthcare workers. Previous research identified changes in patients' status to COVID-19 positive during the treatment period reached 10.06%; indicated the high risk of transmission, including in neurology treatment area. This study aims to identify COVID-19 risk factors in the neurology medical service of Cipto Mangunkusumo General Hospital.

Methods

Methods Health workers and non-health workers in non-COVID 19 neurology medical services went through a serial serological examination of total COVID-19 antibodies (day 1 and 30) or PCR test if clinical manifestation was found. Demographic, clinical, Dan risk factors were assessed using a questionnaire (day 0, 7, 14, 21, 30). Identification of risk factors classified as internal and external, which assessed the activities and contact history within or outside the hospital.

Results

Result Among 103 subjects, seven subjects are diagnosed as COVID-19 based on PCR or seroconversion in antibody test. The significant internal risk factor identified were worked in shift ($p = 0.045$; OR 1.12), ate together ($p = 0.002$; OR 18), contacted within ≤ 1 m ($p = 0.029$; OR 1.125), and performed procedures that involved physical contact ($p = 0.004$; OR 1.17). The significant

	Changes in COVID-19 Status				P	OR (95%CI)
	Yes (n=7)		No (n=96)			
	n	%	n	%		
Age	38 ± 8.9		35 (23-59)		0.768	
Gender						
Male	0	0	24	25		
Female	7	100	72	75	0.196	
Clinical Manifestation (Within 14 days)						
Symptoms (+)	4	12.5	28	87.5		
Symptoms (-)	3	4.2	68	95.8	0.2	
Internal Hospital Risk Factor						
Work Location						
Uni Location	2	28.6	58	60.4		
Multiple Location	5	71.4	38	39.6	0.126	
Work Frequency						
>3 days/week	7	100	82	85.4		
1-3 days/week	0	0	14	14.6	0.999	
Work Shift						
Shift	7	100	58	60.4		
Non-Shift	0	0	38	39.6	0.045	1.12 (1.03-1.22)
Eating Behaviour						
Alone	1	14.3	72	75		
Together	6	85.7	24	25	0.002	18 (2.06-157.1)
In the open space	1	14.3	38	39.6		
In the closed space	6	85.7	58	60.4	0.249	
Within the Same Room with COVID-19 Patient	7	100	66	68.8	0.103	
Contact Distance with COVID-19 patient						
≤1 meter	7	100	56	58.3		
>1 meter	0	0	40	41.7	0.029	1.125 (1.03-1.23)
Contact Duration with COVID-19 patient						
≤15 minutes	3	42.9	25	37.9		
>15 minutes	4	57.1	41	62.1	1	
Healthcare workers interact with patients without standard PPE	0	0	15	15.6	0.590	
Level 2 PPE usage when interact with patients						
Appropriate	29	30.2	4	57.1		
Not appropriate	67	69.8	3	42.9	0.207	
Procedures that involved physical contact with patients under surveillance for COVID-19	7	14.6	41	85.4	0.004	1.17 (1.04-1.32)
External Hospital Risk Factor						
Working in other Healthcare Facilities	0	0	11	11.5	0.630	
Transportation to Cipto Mangunkusumo Hospital						
Private	6	85.7	37	55.2		
Public	1	14.3	30	44.8	0.227	
Weekend Activities						
Stay at Home	0	0	40	41.7		
Go to Public Space	7	100	56	58.3	0.029	1.125 (1.03-1.23)
Living with COVID-19 patient	2	28.6	6	6.3	0.09	
Relation with COVID-19 patient						
Family	2	100	3	50		
Non-Family	0	0	3	50	0.464	
Travel with COVID-19 patient	2	28.6	13	13.5	0.590	
Contact Duration with COVID-19 patient						
≤15 minutes	0	0	4	30.8		
>15 minutes	2	100	9	69.2	1	
Contact History with COVID-19 patient	2	28.6	12	12.5	0.242	

external risk factor was going to public places on weekends (p = 0.029; OR 1.125).

Conclusions

The main risk factor for transmission of COVID-19 in the neurology medical service of Cipto Mangunkusumo hospital is public spaces usage outside of health service hours, namely the habit of ate together.

doi:10.1016/j.jns.2021.119888

119889

A study on neurological problems arising due to COVID-19

A. Sheekha, Shivam Mishra, EGC, Department of Pharmacology, Mehsana, India

Background and aims

The COVID-19 pandemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has been predominantly a respiratory manifestation. Currently, with evolving literature, neurological signs are being increasingly recognized. Studies have reported that SARS-CoV-2 affects all aspects of the nervous system including the central nervous system (CNS), peripheral nervous system (PNS) and the muscular system as well. Not all patients have reverse transcription-polymerase chain reaction positive for the virus in the cerebrospinal fluid, and diagnosing the association of the virus with the myriad of neurological manifestations can be a

challenge. It is important that clinicians have a high-index of suspicion for COVID-19 in patients presenting with new-onset neurological symptoms.

Methods

The neurological manifestations can broadly be categorized into CNS and PNS. The neurological manifestations are commonly observed in older age and critically ill patients. We are reporting a clinical data of 200 patients with COVID-19 over a three-week period showcasing neurological or psychiatric disease in Gujarat, India.

Results

Notably, cerebrovascular event in (46%) patients, ischaemic stroke in 57 (62%), intracerebral haemorrhages in nine (7%) and CNS vasculitis in one (<1%) patients were documented. This study also reported altered mental status in 31% of patients, encephalopathy (13%) and neuropsychiatric diagnosis (18%).

Conclusions

The neurological manifestations in patients with COVID-19 are varied and can emerge standalone or during the clinical course. Upholding a high-index of suspicion for COVID-19 in patients presenting with new-onset neurological symptoms will expedite an early diagnosis. Further studies are desired to unravel these varied neurological manifestations, treatment in COVID-19 patient.

doi:10.1016/j.jns.2021.119889

119890

COVID-19 in patients with myasthenia gravis: Which prognosis?

Bissene Douma^a, Ines Bedoui^b, Mariem Elfekih^c, Hajer Derbali^{de}, Anis Riahi^e, Mariem Messelmani^e, Malek Mansour^e, Jamel Zaouali^e, Ridha Mrissa^e, ^aMilitary Hospital of Instruction of Tunis, Department of Neurology, Sousse, Tunisia, ^bCHU, Tunis Military Hospital, Tunis, Tunisia, ^cCHU, Neurology, Nabeul, Tunisia, ^dMilitary Hospital of Instruction of Tunis, Department of Neurology, Tunis, Tunisia, ^eMilitary Hospital of Tunis, Neurology, Monfleury, Tunisia

Background and aims

Coronavirus disease 2019 (COVID-19) is now the major public health concern worldwide. It can cause neurological complications and increase risk of exacerbations of chronic neurological disorders.

Methods

We report a series of patients with myasthenia gravis who developed COVID-19 and referred to the neurology department of the Military Hospital of Tunis. Clinical characteristics and outcome of these patients are described.

Results

Four patients with previously stable Myasthenia Gravis, had myasthenic exacerbation and were hospitalized in our department. One patient presented diplopia and two patients had dysphagia and limb weakness. One of them developed hypoxemic respiratory failure and required Intensive care unit admission and intubation. Three patients were treated with intravenous immunoglobuline. Increasing steroid doses was necessary in two cases. The outcome was favorable for all patients.

Conclusions

Clinical course and outcome in patients with Myasthenia gravis and COVID-19 are variable. Early treatment is necessary in order to improve the prognosis of these patients.

doi:10.1016/j.jns.2021.119890