



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.

	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	0.399	
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		
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		
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		
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		
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		
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<sup>a</sup>, Ines Bedoui<sup>b</sup>, Mariem Elfekih<sup>c</sup>, Hajer Derbali<sup>de</sup>, Anis Riahi<sup>e</sup>, Mariem Messelmani<sup>e</sup>, Malek Mansour<sup>e</sup>, Jamel Zaouali<sup>e</sup>, Ridha Mrissa<sup>e</sup>, <sup>a</sup>Military Hospital of Instruction of Tunis, Department of Neurology, Sousse, Tunisia, <sup>b</sup>CHU, Tunis Military Hospital, Tunis, Tunisia, <sup>c</sup>CHU, Neurology, Nabeul, Tunisia, <sup>d</sup>Military Hospital of Instruction of Tunis, Department of Neurology, Tunis, Tunisia, <sup>e</sup>Military 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