



AN ASSESSMENT OF HEADACHE DISORDERS IN PATIENTS RECOVERED FROM COVID19 ILLNESS

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ABSTRACT

Background- Headaches are one of the most common features of COVID-19 infection. Headache affects 47.1% (95% confidence interval [CI]: 35.8%–58.6%) of patients in the acute phase of COVID-19. the possible mechanisms of headache associated with COVID-19 could be a direct invasion of trigeminal nerve endings in the nasal cavity by the SARS-CoV-2, vascular pathogenesis through the involvement of endothelial cells with high expression of ACE2 leading to activation of the trigemino-vascular system or the release of pro-inflammatory mediators and cytokines may trigger perivascular trigeminal nerve endings during the COVID-19 infection. . Therefore, we selected covid-19 patients who suffered from headache to study their clinical profile. **Methods-** 200 COVID-19-infected patients who suffered from headache during COVID -19 infection in age group 18-90 years admitted in our 500 bedded covid dedicated hospitals associated with Maharaja Yashwantrao hospital, Indore, were observed for their clinical profile, complications, and outcome etc. **Results-** Headache is a very prevalent COVID-19 symptom among patients presenting to the hospital, most frequently presenting as holocranial or bifrontal, moderate to severe, and throbbing quality headache. In majority of the patients, the severity and frequency of headache increased as compared to severity and frequency before COVID 19 infection, however the character of headache remained same as that of before the infection. The headache severity and frequency became same as that of before the infection after the infection was cured. In majority of patients, the headache occurred during the acute phase of infection. In large percentage of patients, headache was associated with cough, fever and hypoxia. **Conclusion-** headache is an important presenting symptom of COVID -19 infection. The clinical profile of headache can vary in different patients depending upon the age, sex, severity of infection, duration of infection, and associated comorbidities. Onset of headache can also point towards occurrence of a complication in COVID-19 infection. Hence it is important to take into consideration headache as an important symptom of COVID 19 infection.

KEYWORDS : covid-19, headache, severity, clinical, complications

INTRODUCTION

Neurological symptoms are frequent in coronavirus disease 2019 (COVID-19), the disease caused by the coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and affect 9% to 92% of hospitalized patients.

Headaches are one of the most common features of COVID-19 infection.

As the pandemic progresses and the population of patients recovering from COVID-19 grows, it is becoming apparent that the headache present in the acute stage of the infection may persist for an indeterminate period, becoming a major problem for the patient and potentially leading to disability.

Several hypotheses have been proposed on the pathophysiology of headache in the context of acute COVID-19. Some of these mechanisms, both non-specific and specific to SARS-CoV-2, may be involved in the persistence of headache after resolution of the acute stage of the disease.

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CASE STUDY

In present study , 200 patients with associated headache during COVID -19 infection were studied and their headache profile were studied.

out of 200 Covid-19 patients, 17(8.5%) patients belong to age group 20-30 years, 35(17.5%) patients belong to age group 31-40 years, 54(27%) patients belong to age group 41-50 years, 41(20.5%) patients belong to age group 51-60 years, 37(18.5%) patients belong to age group 61-70 years and 16(8%) patients belong to age group >70 years.

out of 200 Covid-19 patients, the majority of patients 139(69.5%) are male and rest 61(30.5%) are female

Clinical profile of headache in COVID -19 infection

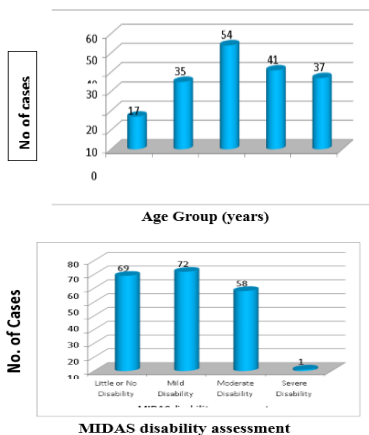
Majority of patients involved the frontal region of head (77%) which was followed by top of the head (38%) being the second most commonly involved.

The most common character of headache found in our study was throbbing type both before and after COVID. The second most common type being pulsing type (20.5%).

Only 4% of patients showed preliminary symptoms, out of which difficulty concentrating was most commonly in 37.5%. Aura was seen in 2.79 % patients with visual aura predominant, seen in (66.64) followed by sensory aura, seen in 33.32 %.

Majority of patients 108(54%) had headache on an average of 1-6 hrs, whereas 53(26.5%) patients had for 6-12 hrs, while 39(19.50%) patients had ≤ 1 hours 40.5 % had some precipitating factors for headache out which stress was the most common precipitating factor seen in 31.93% patients followed by fasting seen in 21% patients.

93.5 % patients experienced the acute phase of COVID 19 infection 62% patients had headache accompanied with fever. Patients' distribution by MIDAS disability assessment was 69(34.5%) little or no disability, 72(36.0%) mild disability, 58(29.0%) moderate disability, and 1(0.5%) severe disability



Patients' distribution by ALLODYNIA assessment score (ASC-12) was mild - 17(8.5%), Moderate - 4(2.0%) and majority of patients 179(89.5%) ALLODYNIA assessment score (ASC-12) were none.

Patients' distribution by PATIENT HEALTH assessment score (PHQ-9) was mild - 73(36.5%), moderate - 1(0.5%) and majority of patients 126(63.0%) depression severity were none.

Patients' distribution by GENERAL ANXIETY DISORDER SCALE (GAD-7) were low risk anxiety severity in 192(96.0%) patients and mild anxiety severity were in 8(4.0%) patients. None of the patients had severe anxiety

CONCLUSIONS

In the current study, we have considered 200 COVID-19-infected patients with headache in age group 18-90 years and considered their clinical profile. Headache was more prominent in age group 41-50 years was more predominant in males.

Headache is a very prevalent COVID-19 symptom among patients presenting to the hospital, mostly seen in most frequently presenting as holocranial or bifrontal, moderate to severe, and throbbing quality headache. In majority of the patients, the severity and frequency of headache increased as compared to severity and frequency before COVID 19

infection, however the character of headache remained same as that of before the infection. The headache severity and frequency became same as that of before the infection after the infection was cured. In majority of patients, the headache occurred during the acute phase of infection. In large percentage of patients, headache was associated with cough, fever and hypoxia. in majority of patients 172(86%) headache was relieve by its own, while in 28(14%) patients headache was relieve on taking medication.

Patients distribution by MIDAS disability assessment was 69(34.5%) little or no disability, 72(36.0%) mild disability, 58(29.0%) moderate disability, and 1(0.5%) severe disability.

Patients distribution by ALLODYNIA assessment score (ASC-12) was mild - 17(8.5%), Moderate - 4(2.0%) and majority of patients 179(89.5%) ALLODYNIA assessment score (ASC-12) were none.

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