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ISCHEMIC STROKE AND INTRACEREBRAL HEMORRHAGE IN PATIENTS WITH COVID-19

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ABSTRACT

Introduction. Patients with coronavirus disease 2019 (COVID-19) can exhibit neurological symptoms and diseases. A few studies have focused on cerebrovascular diseases in patients with COVID-19. In the present study, we assessed medical records of patients with COVID-19 with stroke.

Material and methods. Forty-seven COVID-19 patients with stroke were consecutively selected and reviewed. Medical records of the patients including information on age, gender, severity of pulmonary involvement (intubation or non-intubation) in COVID, presence of ICH and ischemic stroke, localization of ICH, history of diabetes and hypertension were collected.

Results. Twenty-three COVID-19 patients (49%) had ICH and 24 COVID-19 patients (51%) had ischemic stroke. Sixteen COVID-19 patients with ICH (69.6%) had lobar hemorrhage and 7 COVID-19 patients with ICH (30.4%) had non-lobar hemorrhage ($p = 0.093$).

Conclusions. In this study, ICH and ischemic stroke were present at roughly the same rate in COVID-19 patients with stroke. Lobar hemorrhage was seen more frequently in COVID-19 patients with ICH. Brain and cerebrovascular imaging can be a helpful component of the work-up in COVID-19 patients.

Keywords: COVID-19, SARS-CoV-2, intracerebral hemorrhage, ischemic stroke

INTRODUCTION

Coronavirus disease 2019, commonly referred to as COVID-19, stems from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease was first introduced in December 2019 and spread throughout the world. The most common symptoms of the disease are fever, cough, shortness

of breath and headache; however, COVID-19 has a range of neurological symptoms and diseases. For example, Guillain-Barré syndrome (GBS) [1], meningitis/encephalitis [2], seizures [3], acute disseminated encephalomyelitis [4], and leukoencephalopathy [5] have been reported in COVID-19 patients. Loss of smell (anosmia) and taste (ageusia) was also seen in patients with COVID-19 [6]. Re-

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