



COVID-19 Associated Mucormycosis: Experience of the Pandemic

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Introduction:

Corticosteroids are used to treat coronavirus disease- 2019 (COVID-19) patients and reduce damage to the immune system during coronavirus infection. However, increasing rate of mucormycosis during COVID-19 pandemic has led to concerns. This study aimed to determine the relationship between the incidence of mucormycosis infection with the dose and duration of corticosteroid use in COVID-19 pandemic at first to fifth peaks at Mashhad city.

Methods:

This was a cross sectional study conducted on 43 COVID-19 patients with mucormycosis infection, who were referred to Imam Reza hospital affiliated to Mashhad University of Medical sciences. The information of COVID-19 patients infected with mucormycosis was gathered during five peak of COVID-19 pandemic. First, the patient's demographic and clinical information were coded and recorded in a checklist.

Keywords:

Corticosteroids Therapy, Coronavirus disease- 2019, Dexamethasone, Mucormycosis

Result:

Among 43 mucormycosis patients, 53.7% of patients (22 cases) had proven invasive mucormycosis and 29.3% (12 cases) had probable mucormycosis, and 17.1% of them (7 cases) were diagnosed as possible mucormycosis. Only 11.4%, 9.1%, and 2.3% of COVID-19 patients infected with mucormycosis have diabetes, hypertension and arthritis, respectively. The mean of dexamethasone duration was 9.76 ± 4.6 days ranged between 5-22 days and the mean of injected dexamethasone dosage was 193.63 ± 147.09 mg, which its minimum and maximum were 24 and 512 mg, respectively. The injected dosage of dexamethasone was lower than 50 mg in 9.1% of patients. Moreover, 59.1% received 50-250 mg dexamethasone during the treatment. The injected dexamethasone was higher than 250 mg in 31.8% of COVID-19 patients infected with mucormycosis.

Discussion & Conclusion:

Probably, the use of high dosage corticosteroids play an important role in the incidence of Mucormycosis in the recent peaks considering very low frequency of underlying disease in mucormycosis patients.