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**RIISING INCIDENCE OF MUCORMYCOSIS IS A NEW
PANIC CHALLENGE IN SOUTHWEST OF IRAN
DURING COVID-19 PANDEMIC:
ASSOCIATED RISK FACTORS AND PREVENTIVE MEASURES**

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ABSTRACT

Background: The increase in mucormycosis after COVID-19 pandemic has become a serious medical concern, leading to widespread complications and deaths worldwide. It is essential to identify the factors affecting mortality and associated complications. Therefore, the aim of this study is to investigate the rise in mucormycosis incidence as an important challenge in southwest Iran during the COVID-19 pandemic.

Material and methods: In this study, demographic and clinical information of COVID-19 patients, including age, gender, underlying medical conditions, etc., were extracted from patients' files. The analyzes 48 mucormycosis patients and 52 controls, utilizing measures of central tendency, dispersion, frequency, and odds ratios.

Results: Our study revealed that the distribution of age, gender, and history of organ transplantation in the case and control groups was similar. Most mucormycosis patients were in the age group of 41 to 60 years (45.3%). Most study participants were males (28 individuals, 58.3%). The most prevalent underlying comorbidities among patients with mucormycosis were diabetes (93.8%) and hypertension (41.7%). Twenty-four individuals (50%) had a history of steroid use. In the control group, the most common underlying conditions were hypertension (32%), hyperlipidemia (21%), and diabetes (19%). Only 3 individuals (5.7%) in the control group had a history of steroid use, and an equal number (5.7%) had a history of other immunosuppressive drug use. Risk factors associated with an increased chance of mucormycosis included diabetes compared to non-diabetic individuals, with an odds ratio of 63, 95% confidence interval of 16.28-244; corticosteroid treatment with an odds ratio of 16.3, 95% confidence interval of 4.47-59.67; and treatment with other immunosuppressive drugs with an odds ratio of 6.06, 95% confidence interval of 1.60-22.89.

Conclusion: Diabetes, corticosteroids, and immunosuppression increase the risk of COVID-19-associated mucormycosis risk. Avoiding corticosteroids in mild cases and closely monitoring blood sugar level can help to reduce of COVID-19-associated mucormycosis.

KEYWORDS: mucormycosis, COVID-19, incidence

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