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Research Article

ANALYSIS OF EARLY DIAGNOSIS AND TREATMENT OF MUCORMYCOSIS IN PATIENTS WITH COVID-19

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ABSTRACT

The development of mucormycosis is also caused by the lack of timely diagnosis and treatment of patients with chronic hemisinusitis after suffering from Covid-19, as well as the omission of intraocular and intracerebral complications. Timely diagnosis and treatment of mucormycosis during a pandemic are of great importance in the rapid recovery of the general condition of patients, and prevention of sinus thrombosis and other complications.

KEYWORDS

Mucormycosis, fungus, Loss of smell, Rhizopus, Lichtheimia Hemisinusitis.

INTRODUCTION

Antibacterial, hormone therapy, diuretics, antiviral drugs, anticoagulant, antiaggregant, hepatoprotectors, cardioprotectors, and symptomatic treatments were carried out in the process of timely

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diagnosis and treatment of mucormycosis in patients, rapid recovery of the general condition of patients, prevention of sinus thrombosis and other complications.

Including Mucormycosis-black mould or black fungus [1], an infection caused by the genera Mucor, Rhizopus, and Rhizomucor of the Mucoreles family. The most common symptoms of the disease are invasive necrotic lesions in the nose and palate, causing pain, fever, orbital cellulitis with proptosis, and purulent discharge from the nose [2].

THE MAIN PART

Mucormycosis mainly starts in the mouth or nose and spreads to the central nervous system by affecting the eyes [2].

If this disease starts from the nose or paranasal sinuses and passes to the brain, the signs and symptoms of the disease are observed unilaterally. These are unilateral eye pain, headache and facial pain, insomnia, fever, loss of smell, and nasal and paranasal sinuses with itching. symptoms such as congestion or flu are considered. Many patients develop cholardagemysinusitis [3]. Swelling on one side of the face, rapidly growing "black lesions" from the nose or hard palate in the upper part of the mouth, one eye is swollen and bulging, and vision may be blurred or completely lost [1], [3].

Mucormycosis invasion of blood vessels can lead to thrombosis and death of surrounding tissues due to loss of blood supply [5].

Disseminated mucormycosis usually occurs in people with other chronic conditions, so it can be difficult to determine which symptoms are related to mucormycosis. As a clear example of these, patients with diabetes can be seen. Looking back at history, the first case of mucormycosis was described by Friedrich Küchenmeister in 1855 [7].

Fürbringer first described the disease in the lungs in 1876[8]. In 1884, Lichtheim traced the development of the disease in rabbits and described two types. "Mucor corymbifera" and "Mucor rhizopodiformis", later called "Lichtheimia" and "Rhizopus" [7].

In 1953, Saxenayea vasiform, which was found to cause several cases, was isolated from forest soil in India, and in 1979, PC Misra examined soil from an Indian mango orchard, where Apophizomyces was isolated, later identified as the major cause of mucormycosis [7].

Since then, several species of Mucorales have been described [7]. In the mid-1950s, an American author thought it was a new disease caused by the use of antibiotics, ACTH, and steroids [8]. Until the second half of the 20th century, the only treatment was potassium iodide. In a review of pulmonary cases diagnosed after flexible bronchoscopy between 1970 and 2000, survival was found to be better with surgery and conservative treatment, mainly with amphotericin B [8].

During the COVID-19 pandemic in Uzbekistan, this disease has become another important health problem. As of 2020-2021, 537 patients with diseases of the nose and paranasal sinuses were treated in the Otorhinolaryngology Department of the Regional Multidisciplinary Medical Center in the Fergana region. More than 50 patients were treated with mucormycosis. The risk of developing this type of disease is highest in coronavirus patients who have diabetes or are immunocompromised. Late detection of this infection in humans is fatal. For this reason, doctors advised patients with coronavirus to take "black mould" seriously and consult a doctor when symptoms are observed [12].

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Many media outlets have referred to it as black fungus, which is caused by a fungus found in dead and dying tissue.

Even before the COVID-19 pandemic, the incidence of mucormycosis was observed worldwide and was approximately 70 times higher in India compared to other mucormycosis-endemic countries [9].

Due to the rapid increase in the number of cases, many states and governments of India have declared the mucormycosis epidemic[10]. Several cases of mucormycosis, aspergillosis and candidiasis were reported to be associated with immunosuppressive treatment for COVID-19 during the 2020/21 pandemic in India [11].

In early 2021, one review of the association between mucormycosis and COVID-19 reported eight cases of mucormycosis. In particular, three were from the USA, two from India, Brazil, and Italy and one from the UK.

CONCLUSION

Early diagnosis and treatment of hemisinusitis in patients with Covid-19 will help prevent complications of the disease such as mucormycosis and sinus thrombosis among patients.

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