COVID-19, steroids, and mucormycosis: What an ophthalmologist should know

Dear Editor,

The landmark RECOVERY (Randomised Evaluation of COVID-19 Therapy)[1] trial published in June 2020 has served as a license to use steroids in patients with COVID-19 (coronavirus disease 2019). However, the benefit was specifically shown with low-dose, short-duration dexamethasone in moderate to severe illness, a point we certainly seemed to have missed. The use of high doses of corticosteroids and anti-IL-6-directed strategies in patients has led to a flare-up of secondary bacterial and fungal infections, mucormycosis being an important one of them.

With the blatant misuse of steroids, new cases of mucormycosis are coming into light every day, and as such it becomes important for a treating ophthalmologist to familiarize themselves with the disease, aiding in early diagnosis, a point that cannot be emphasized enough. Delay in recognizing the early symptoms and signs could prove cataclysmic in a disease that already has such a high mortality rate. Sarkar *et al*.[2] reported that four of their 10 patients expired within 1 of the diagnosis, five patients had irreversible vision loss, and only one patient had both ocular and systemic favorable outcomes. Eyelid swelling, black discoloration, ptosis, proptosis, restricted eye movement, eschar or black discharge in the nasal or oral cavity, and cranial nerve involvement are ominous signs[3] that should raise alarms in a post-COVID-19 patient.

Mucormycosis has a significant impact on the patient's standard of living and therefore a high clinical suspicion, early diagnosis, and prompt treatment are key to alleviate the patient's misery and ameliorate recovery. There is no biomarker for mucormycosis, and hence a negative galactomannan and beta-d-glucan are useful pointers only to rule out other mold infections. Rapid diagnostic methods include KOH (potassium hydroxide) mount, calcofluor stain, and biopsy. Because mucor is difficult to culture, biopsy is the mainstay of diagnosis. Treatment principles include antifungal agents, surgical debridement, and reversal of underlying predisposing factors. Amphotericin B has been the standard of treatment for invasive mucormycosis, but in cases of renal impairment, posaconazole or isavuconazole become useful alternatives.[4]

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Abhishek Tandon, Latika Pandey[1]

Department of Pulmonary, Critical Care and Sleep Study, AIIMS, Jodhpur, Rajasthan, [1]Regional Institute of Ophthalmology, Pt. B.D. Sharma, PGIMS, Rohtak, Haryana, India

Correspondence to: Dr. Abhishek Tandon, Senior Resident, Department of Pulmonary, Critical Care and Sleep Medicine, AIIMS, Jodhpur - 342 005, Rajasthan, India. E-mail: drabhishektandon07@gmail.com

References

1. RECOVERY Collaborative Group. Dexamethasone in Hospitalized Patients with Covid-19. N Engl J Med 2021;384:693-704.
2. Sarkar S, Gokhale T, Choudhury SS, Deb AK. COVID-19 and orbital mucormycosis. Indian J Ophthalmol 2021;69:1002-4.
3. Sen M, Lahane S, Lahane TP, Parekh R, Honavar SG. Mucor in a viral land: A tale of two pathogens. Indian J Ophthalmol 2021;69:244-52.
4. Sun HY, Singh N. Mucormycosis: Its contemporary face and management strategies. Lancet Infect Dis 2011;11:301-11.

Access this article online

Quick Response Code:

Website: www.ijo.in

DOI: 10.4103/ijo.IJO_1143_21

Cite this article as: Tandon A, Pandey L. COVID-19, steroids, and mucormycosis: What an ophthalmologist should know. Indian J Ophthalmol 2021;69:1970.