

Commentary: Data and COVID-19-associated mucormycosis: Time to pause and reassess?

The authors have described in their study the outcomes of patients in whom transcutaneous retrobulbar amphotericin B (TRAMB) was injected in rhino-orbital-cerebral-mucormycosis (ROCM).^[1] The strengths of the study include the large number of patients who received TRAMB, the use of a structured classification system to categorize the severity of the disease, and the final assessment that was made on the basis of a clinical evaluation and imaging. Another highlight of the paper is the high number of patients who developed transient inflammation TRAMB (23%), which is very useful data on an occurrence that is known to happen but is seemingly underreported in the

literature. Furthermore, this is one of the first few large studies where liposomal amphotericin B was used for retrobulbar injections. The authors need to be commended for conducting this pilot prospective study to assess the effectiveness of TRAMB in ROCM.

However, the scope of the data presented by the authors is wide, and much more meaningful outcomes would have been expected, for example, the role of factors, such as presenting vision, the presence of ophthalmoplegia, and diabetic status, in predicting a good response to TRAMB. Many questions remain unanswered such as did TRAMB have an effect on final outcomes and mortality rates? Were these consecutive patients? Did all patients receive long-term oral Posaconazole, the lack of which may lead to poor outcomes? In addition, the scoring system is not validated, and given the subjective parameters, inter-observer variability is a potential issue that

has not been addressed. COVID-19 itself can cause changes in the fundus and affect vision; therefore, having fundus findings in the scoring system could be misleading.^[2,3] Parameters such as oxygen dependency, vaccination status, and steroid use were gathered; however, the results do not show any analysis of these factors. It would benefit the readers if the authors had addressed all lacunae in the methodology such as patient selection criteria. Furthermore, although repeat imaging was done after 4 weeks, post-TRAMB clinical assessment was done at 8 weeks.

Most papers that have given guidelines for TRAMB have focussed on radiological findings, specifically, MRI with contrast.^[4-6] Contrast uptake is the single most important radiological factor that helps in deciding whether TRAMB is indicated or not. In the present study, patients who would classify in “Group A” as per the authors’ classification system are patients who probably would have done well with endoscopic debridement and adequate systemic anti-fungal therapy alone.

There has been a deluge of papers on treatment strategies and reported outcomes of ROCM patients who were treated following the second wave of COVID-19 in India. However, most papers, including this, suffers from having inadequate follow-ups. The recommended treatment duration for ROCM is at least 3 to 6 months, which means that the final outcome in terms of morbidity, mortality, and eventual survival can be conclusively determined only if this period has elapsed.^[7] Recurrent episodes of fungal disease and delayed complications such as osteomyelitis arising from ROCM, and patients with stable intracranial disease are some of the unusual clinical pictures that are now emerging in patients who were treated many months ago. There has been an “infodemic” of mucormycosis-related literature emerging from India. As a result, it is becoming increasingly difficult to cherry-pick the papers that present new data that can potentially change the way the disease should be treated. As authors, it is prudent to publish new literature on the topic only if it improves our understanding and treatment strategies of this formerly rare disease. Perhaps, it is time for authors and reviewers to pause, reassess, and reanalyze.

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