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Abstract

Background and Purpose: Invasive mucormycosis is a fatal disease caused by Mucorales species. Treatment therapy for CAM includes aggressive surgical debridement and systemic antifungals in Amphotericin B and Posaconazole as step-down therapy in the follow-up period. Despite being on oral antifungal Posaconazole therapy, patients have been observed to have a recurrence of mucormycosis in the follow-up period. Experimental Approach: An ambispective cohort study was done in the department of ENT and Pharmacology of All India Institute of Medical Sciences (AIIMS), Bhubaneswar, from April 2021 to September 2022. It includes patients on follow-up on the step-down therapy of Posaconazole. Medication adherence was measured based on the half-life of Posaconazole and participants not skipping a single dose. Key Results: The demographic data between the recurrence and non-recurrence groups, including age, sex and duration of stay, was not significant. Recurrence in mucormycosis was not found to be associated with medication adherence. By both methods of calculating medication adherence, the results were statistically insignificant. The difference in onset of recurrence of the disease between the two groups was statistically significant, with a p-value of 0.027 in patients who did not skip a single dose of Posaconazole with a hazard ratio of 3.887. There was a statistically significant difference in cost-effective analysis with a p-value of 0.042 between groups. Conclusion and Implications: Posaconazole medication adherence in the postoperative period does not affect the recurrence of mucormycosis during step-down therapy. However, it helps prolong the onset of disease recurrence in patients adhering to the medication.

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