Introduction

Fingolimod is a sphingosine-1-phosphate-receptor modulator, promoting receptor internalization, and preventing/imparing egress of peripheral T- and B-cells from secondary lymphoid tissue into blood, reducing access to the central nervous system.

Pre- and post-marketing surveillance suggests that there may be a greater risk of opportunistic infections, including cryptococcosis, after at least 2 years of fingolimod use.

Guidelines on balancing efficacious disease-modifying therapies (DMTs) to treat multiple sclerosis (MS), while treating an opportunistic infection associated with DMT have not yet been established.

Clinical Course

• Discontinued fingolimod
• Consultation with Infectious Disease specialist who initiated oral fluconazole for prolonged therapy of cryptococcosis
• To avoid further immunosuppression with presence of active fungal infection, glatiramer acetate started as next DMT
• Three-month neurological follow-up: Clinical relapses and new MS lesions on brain and spinal cord imaging
• Three month CT Chest: decrease in pulmonary nodules
• MS remained active and cryptococcosis was resolving, prioritization given to optimizing MS therapy
• Infectious Disease specialists made aware, plan to monitor closely, and escalate fungal therapy as needed

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MRI Brain: 1 month prior to diagnosis of cryptococcosis
• Compliant on fingolimod 3 years
• New T2 FLAIR and enhancing cerebellar lesion
• Lumbar Puncture: normal cell count, protein, glucose, and negative Cryptococcus neoformans or gattii antigen

CT Chest: Multiple pulmonary nodules
• Repeat Imaging: growth of nodules
• Bronchoalveolar Lavage: rare Cryptococcus neoformans in fungal culture
• Positive cryptococcus antigen in serum (1:80 titer)

MR Brain and Thoracic Spine: 3 mo after discontinuing fingolimod and initiating glatiramer acetate, presence of new lesions

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