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Fungal rhinosinusitis: what every allergist should know.

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Abstract

The interaction between fungi and the sinonasal tract results in a diverse range of diseases with an equally broad spectrum of clinical severity. The classification of these interactions has become complex, and this review seeks to rationalize and simplify the approach to fungal diseases of the nose and paranasal sinuses. These conditions may be discussed under two major headings: non-invasive disease (localized fungal colonization, fungal ball and allergic fungal rhinosinusitis) and invasive disease (acute invasive rhinosinusitis, chronic invasive rhinosinusitis and granulomatous invasive rhinosinusitis). A diagnosis of fungal rhinosinusitis is established by combining findings on history, clinical examination, laboratory testing, imaging and histopathology. The immunocompetence of the patient is of great importance, as invasive fungal rhinosinusitis is uncommon in immunocompetent patients. With the exception of localized fungal colonization, treatment of all forms of fungal rhinosinusitis relies heavily on surgery. Systemic antifungal agents are a fundamental component in the treatment of invasive forms, but are not indicated for the treatment of the non-invasive forms. Antifungal drugs may have a role as adjuvant therapy in allergic fungal rhinosinusitis, but evidence is poor to support recommendations. Randomized controlled trials need to be performed to confirm the benefit of immunotherapy in the treatment of allergic fungal rhinosinusitis. In this article, we will summarize the current literature, addressing the controversies regarding the diagnosis and management of fungal rhinosinusitis, and focussing on those aspects which are important for clinical immunologists and allergists.

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