CONTINUING MEDICAL EDUCATION EXAMINATION

Allergic Fungal Airway Disease

Instructions for obtaining 1.6 Continuing Medical Education Credits

Credits can be earned by reading the text and completing the CME examinations online throughout the year on the SEAIC web site at **www.seaic.org**

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CME Items

1. Which fungi are thermotolerant?
   a. *Cladosporium herbarum*
   b. *Penicillium chrysogenum*
   c. *Botrytis cinerea*
   d. *Alternaria alternata*
   e. *Aspergillus fumigatus*

2. Which statement(s) about fungal spores in the environment is true?
   a. The number of spores is 10- to 1000-fold or less prominent than pollen grains
   b. The fungal spore concentration does not vary much throughout the year
   c. Ascomycota and Basidiomycota comprise <50% of the fungal spores
   d. Hyphal fragments, spores, and yeast are present in inhaled air
   e. Smaller spores are more likely to be caught in the nasopharynx than bigger spores

3. Type I hypersensitivity reactions to fungi…
   a. involve immunoglobulin A
   b. affect 3%-5% of the general population
   c. involve T_H17 cells
   d. trigger T_H1-mediated inflammation
   e. are only seen in about 10 fungal genera

4. Which statement(s) about fungal allergens is correct?
   a. *Aspergillus fumigatus* extracts contain only a small number of allergenic proteins
   b. The WHO/IUIS lists allergens from 55 fungal species
   c. Fungal allergens are generally unique for each species with limited cross-reactivity
   d. Some fungal allergens are closely related to human proteins
   e. Genetic predisposition might contribute to polysensitization

5. The diagnosis of fungal sensitization…
   a. is performed with standardized extracts.
   b. can be made by testing for only 1 mold extract.
   c. cannot be made against basidiospores.
   d. is usually obvious from the time of year symptoms occur
   e. shows discrepancies between the skin prick test and ImmunoCAP blood test.

6. Allergic fungal rhinosinusitis
   a. is caused by fungal colonization of a sinus, leading to impaired mucus drainage and inflammation
   b. is mediated by type I, type II, and type IV hypersensitivity responses
   c. is rarely treated by surgery
   d. is associated with fungal invasion
   e. is mediated predominantly by *Fusarium* and *Cladosporium* species

7. Which statement(s) about allergic fungal airway diseases is true?
   a. Sensitization to fungi is higher in the general population than in asthmatics
   b. Fungal exposure was associated with increased lung function and reduced risk of hospital admissions
   c. Less than 10% of patients with severe asthma are sensitized to fungi
   d. In asthma, fungal sensitization is associated with decreased lung function, increased recovery of fungi from sputum, and higher rates of tissue damage
   e. *Aspergillus niger* is the most common fungus associated with fungal lung diseases

8. What are the criteria for allergic fungal airway disease?
   a. IgE concentration of >1000 IU/L
   b. Sensitization to airborne fungi unable to grow at body temperature.
   c. Aspergilloma
   d. Fungus-specific IgG
   e. Positive IgE-tests for thermotolerant filamentous fungi with symptoms of airway disease

9. Which statement(s) about the outcome of randomized trials of antifungal treatment of allergic fungal airway disease is correct?
   a. Itraconazole showed a considerable improvement in clinical outcomes
   b. Voriconazole was as effective as itraconazole
   c. Itraconazole enhanced the effects of corticosteroids
   d. Triazole antifungals had predictable absorption from the gut
   e. Triazole antifungals were well tolerated with few significant adverse effects

10. What is the best way to treat allergic fungal airway disease?
    a. Reducing allergen exposure by avoiding gardening and indoor sources
    b. Omalizumab
    c. Antifungal therapy
    d. Immunotherapy
    e. No unambiguously effective treatment method has been established