

CONTINUING MEDICAL EDUCATION EXAMINATION

Phenotyping Asthma Exacerbations: One Step Further in the Management of Severe Asthma

Accreditation requested at the "Consejo Catalán de Formación Continuada de las Profesiones Sanitarias – Comisión de Formación Continuada del Sistema Nacional de Salud"

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CME Items

1. What is the current focus in classification of asthma?
 - a. The severity of respiratory symptoms
 - b. The inflammatory phenotype
 - c. The response to bronchodilators
 - d. The age at onset of asthma
 - e. The presence of viral infections
2. What is the main trigger of asthma exacerbations?
 - a. Intense physical exercise.
 - b. Exposure to environmental pollutants.
 - c. Respiratory viral infections.
 - d. Food allergies.
 - e. Emotional stress.
3. Which of the following interleukins is key in T2 inflammation in patients with asthma?
 - a. IL-1.
 - b. IL-6.
 - c. IL-5.
 - d. IL-10.
 - e. IL-12.
4. Which inflammatory characteristic is most commonly associated with a higher risk of asthma exacerbations?
 - a. Elevated levels of neutrophils in sputum.
 - b. Elevated levels of blood eosinophils.
 - c. Increased mucus production.
 - d. Presence of Tregs.
 - e. High levels of proinflammatory cytokines.
5. What role do bronchial epithelial cells play in the antiviral response of asthma patients?
 - a. They increase the production of type I and type III interferons.
 - b. They reduce interferon production and promote type 2 inflammation.
 - c. They promote the activation of alveolar macrophages.
 - d. They inhibit viral proliferation through IL-6 production.
 - e. They trigger a robust T_H1 response to eliminate viruses.
6. According to the study of Poznanski et al, what inflammatory profile is common in exacerbations treated with benralizumab?
 - a. Eosinophilic with high eosinophil presence.
 - b. Neutrophilic associated with infections.
 - c. Paucigranulocytic with no infection.
 - d. High blood eosinophil levels.
 - e. Mixed, with low levels of eosinophils and neutrophils.
7. Which inflammatory mediator is key in the neutrophilia observed in viral infections in asthma patients?
 - a. IL-4.
 - b. IL-8.
 - c. TNF- α .
 - d. EGF.
 - e. IFN- γ .
8. What have recent studies shown about the use of biologic treatments in patients with severe asthma?
 - a. They reduce the number of exacerbations but increase the eosinophil count.
 - b. They may modify the microbiota and affect the inflammatory profile of exacerbations.
 - c. They have no impact on the frequency of virus-related exacerbations.
 - d. They are effective only in T2-high profiles.
 - e. They are useful only for preventing bacterial exacerbations.
9. What was one of the main findings from the study of McDowell et al regarding the stability of inflammatory phenotypes during asthma exacerbations?
 - a. The resting inflammatory phenotype predicted exacerbations.
 - b. There was no significant association between baseline phenotype and exacerbation phenotype.
 - c. Symptoms and lung function clearly indicated the inflammatory phenotype.
 - d. All patients with exacerbations exhibited a neutrophilic pattern.
 - e. The inflammatory phenotype changed significantly only in patients on biologic treatment.
10. According to the studies reviewed, what intervention might be useful in patients with T2-low exacerbations and high sputum neutrophils?
 - a. Increasing the dose of inhaled corticosteroids.
 - b. Switching to an anti-IL-4 biologic treatment.
 - c. Adding antibiotics such as azithromycin.
 - d. Stopping biologic treatment.
 - e. Increasing the antihistamine dosage.