

Step-down treatment regimens in mild persistent asthma

Maria Cristina CONSTANTINESCU, MD, PhD

Cardiology Department, University Hospital of Bucharest, Romania

Bronchial asthma is a pulmonary disease characterized by reversible airway obstruction, airway inflammation and increased airway responsiveness to a variety of stimuli.

Treatment guidelines recommend regular treatment with inhaled corticosteroids for patients with mild persistent asthma since this treatment regimen provides control of symptoms, suppresses airway inflammation and may prevent the progression of asthma. Treatment guidelines also recommend the “stepping-down” of therapy to the minimum needed without a loss of asthma control.

This (Leukotriene or Corticosteroid or Corticosteroid-Salmeterol – LCCS) trial was designed to investigate two step down strategies as substitution for fluticasone propionate, 100 μ g, twice daily, in patients with asthma that was well controlled by this treatment. This was a randomized, double-blind outcome study in 500 patients with a 16 weeks follow-up period.

The subgroups were randomized to receive continued inhaled fluticasone, 100 μ g, twice

daily (n=169), montelukast, 5 or 10mg each night (n=166) or inhaled fluticasone, 100 μ g plus salmeterol, 50 μ g each night (n=165). The primary outcome was the time to treatment failure.

The rates of treatment failure were: 20.2% in the fluticasone group, 20.4% in the fluticasone-salmeterol group and 30.3% in the montelukast group, which represented an approximately 60% higher rate in the montelukast group as compared with the other two groups (hazard ratio 1.6; 95% confidence interval, 1.1-2.6; p=0.03 for both comparisons).

The authors' conclusion is that the patients with asthma that is well controlled with the use of twice daily inhaled fluticasone can be switched to once-daily fluticasone plus salmeterol, without increased rates of treatment failure. A switch to montelukast results in an increased rate of treatment failure and decreased asthma control.

Comment on the paper:

The American Lung Association Asthma Clinical Research Centers – Randomized Comparison of Strategies for Reducing Treatment in Mild Persistent Asthma. *N Engl J Med* 2007; 356:2027-2039