

Long-term ICS use reduces pleural effusion in patients with community acquired pneumonia

May 23 2012

Prior treatment with inhaled corticosteroids in patients with respiratory disorders who develop community acquired pneumonia (CAP) is associated with a lower incidence and severity of parapneumonic effusion, according to a new study from researchers in Spain.

A parapneumonic effusion is a type of pleural effusion (excess fluid that accumulates between the two pleural layers, the fluid-filled space that surrounds the lungs) that arises as a result of a [pneumonia](#), [lung](#) abscess, or bronchiectasis.

"Long-term treatment with inhaled corticosteroids is associated with an elevated risk of CAP in [patients](#) with COPD, while at the same time, use of inhaled corticosteroids is also associated with less CAP severity and a lower risk of pneumonia-related mortality," said Jacobo Sellares, MD, PhD, associate faculty member at Hospital Clínic – The August Pi I Sunyer Biomedical Research Institute (IDIBAPS) in Barcelona, Spain. "In our study, prior treatment with inhaled corticosteroids in patients who developed CAP was associated with a lower incidence and less severity of parapneumonic effusion, regardless of the patient's baseline chronic respiratory condition."

The results will be presented at the ATS 2012 International Conference in San Francisco.

The single center study enrolled 3,602 consecutive patients with a diagnosis of CAP. Of these, 659 (18%) had [respiratory disorders](#) treated with inhaled corticosteroids before CAP was diagnosed. Respiratory disorders included COPD (56%), asthma (13%), bronchiectasis (6%), and other disorders (25%).

Patients with prior treatment with inhaled corticosteroids, compared with those without, had a significantly lower incidence of parapneumonic effusion (5% vs. 12%). This association remained significant after adjustment for age, sex, comorbidities, and CAP severity. Prior corticosteroid treatment was associated with a higher incidence of simple parapneumonic effusion and a lower incidence of empyema compared with no prior corticosteroid treatment.

Baseline pulmonary disorder did not affect the relationship between corticosteroid treatment and parapneumonic effusion.

"Pleural infection is common in patients with CAP and is associated with an increased [mortality](#) risk," said Dr. Sellares. "Our results show that previous treatment of respiratory disorders with inhaled corticosteroids may reduce the risk of developing this dangerous complication."

The potential preventive role of [inhaled corticosteroids](#) in preventing parapneumonic effusion in patients with high risk of CAP must be clarified in future randomized studies, according to Dr. Sellares.

More information: "Influence Of Long-Term Use Of Inhaled Corticoids On The Development Of Pleural Effusion In Community Acquired Pneumonia" (Session D14, Wednesday, May 23, Room 2001-2003, Moscone Convention Center; Abstract 30951)

Provided by American Thoracic Society

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