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Update in Pneumology – Focus on Asthma and COPD

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In a very intriguing study inhaled placebo and sham acupuncture had a similar effect on asthma symptoms as inhaled salbutamol when compared with no intervention, despite a lack of effect on lung function measured by FEV1 (1). By showing again the magnitude of placebo effect in asthma this study re-emphasizes the need for a good choice of controls in asthma studies.

One recent study has augmented the evidence base of using inhaled bronchodilators in obstructive lung diseases. In patients with asthma not controlled by low-dose inhaled steroid, adding tiotropium has been shown to be superior to doubling the dose of inhaled steroid and similar to adding salmeterol in terms of lung function and asthma symptoms in a 14-week study (2). Thus, tiotropium might be a good alternative for treatment of GINA step 3 patients, although longer studies are needed in order to assess the effect on asthma exacerbations.

Evaluation of COPD Longitudinally to Identify Predictive Surrogate End- points (ECLIPSE) study has resulted until now in 18 full articles, out of which the most clinically significant one is related to susceptibility to exacerbations in COPD (3). The frequent-exacerbation phenotype identified in this cohort is relatively independent of the severity of the disease and is most strongly associated with a history of prior exacerbations, and also independently associated with a history of gastroesophageal reflux or heartburn and poorer quality of life, and elevated white-cell count.

Following the warnings on safety of long-acting inhaled beta2agonists in the treatment of asthma, FDA has agreed with four LABA manufacturers to perform four clinical trials in adolescents and adults (each recruiting 11700 subjects) and one in children 4-11 years old (recruiting 6200 subjects). All studies will assess the relative risk of a composite of serious asthma outcomes (asthma-related death, intubation, or hospitalization), will be 6 months long, will begin in 2011 and results will be available after 6 years (4).

The effect of reslizumab, an antibody to interleukin-5, has been studied in a 15-week randomized double-blind placebo-controlled in patients with severe refractory eosinophilic asthma (i.e. with sputum eosinophils > 3%). Reslizumab has improved lung function (as measured by FEV1) and reduced sputum eosinophils, with a trend in improving asthma

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control (as measured by Asthma Control Questionnaire) (5). This adds to previous data on efficacy of anti-IL5 (mepolizumab) in severe refractory eosinophilic asthma and leads the way to a phenotype-driven treatment in asthma.

References

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