Long-term antibiotics for Chronic Rhinosinusitis: changing views

Based on data from Asia showing the positive effect of long-term antibiotics in diffuse panbronchiolitis, a number of studies have been performed on the effect of long-term macrolides on symptomatology of chronic rhinosinusitis. Macrolides possess anti-inflammatory and immune-modulating effects and may be helpful in the treatment of CRS.

A few non-controlled studies have shown favourable results, especially in patients with recalcitrant CRS without nasal polyps (CRSsNP). These observations, combined with the impression in the clinic that patients’ quality of life has indeed improved, called for placebo-controlled trials. Three relatively small double-blind placebo-controlled trials (total 176 patients) were performed and systematically reviewed which showed no effect after three months of macrolide treatment (1). Furthermore, in recent years there has been considerable debate around the potential increased risks of cardiovascular events extending at least a year beyond exposure to the antibiotic (9). In this issue of the Journal, Williamson et al. evaluated the risk of all-cause and cardiac death, and cardiovascular outcomes, associated with macrolide use in patients with CRS. They found, although not statistically significant, a potential increased short-term risk of myocardial infarction in patients with CRS following macrolide prescription. However, no evidence of longer-term increased risks was found.

Contrary to these unclear results in CRS, in the lower airways, the Journal, Harvey et al. published a Cochrane Review which showed a clear reduction of exacerbations in COPD, a number of studies performed and systematically reviewed which showed a non-significant effect after three months of macrolide treatment (1). Furthermore, in recent years there has been considerable debate around the potential increased risks of cardiovascular events extending at least a year beyond exposure to the antibiotic (9). In this issue of the Journal, Harvey et al. evaluated the risk of all-cause and cardiac death, and cardiovascular outcomes, associated with macrolide use in patients with COPD. They found, although not statistically significant, a potential increased short-term risk of myocardial infarction in patients with COPD following macrolide prescription. However, no evidence of longer-term increased risks was found.

In EPOS2012, we decided to present long-term macrolides as an option although the evidence was thin. The upcoming EPOS2020 will again give a full systematic review of the relevant literature to help you to decide on the best treatment for your patients. For now, it is a close call to determine whether to prescribe macrolides and to whom.

References

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