

Remission: Mission Possible in Chronic Rhinosinusitis with Nasal Polyposis?

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To the Editor,

Remission is emerging as the penultimate goal in the management of several chronic diseases. Recent application of these concepts to the management of inflammatory airway disease has promoted the concept of clinical remission, using a “Treat to Target” approach. The concept of remission, now well-established in Rheumatology as well as Gastroenterology (GI), is emerging in Respiratory Medicine with recent publication of definitions of clinical remission for asthma (1). It is interesting to consider whether the disease remission concept might successfully be applied to Otolaryngology-Head and Neck Surgery (OHNS) in the management of chronic rhinosinusitis with nasal polyposis (CRSwNP).

In the treatment of asthma, ‘remission’ is defined as the elimination of exacerbations and stabilization of symptoms, with the possibility of normalizing inflammatory markers, which indirectly reflect lung function and inflammation. Guidelines for inflammatory digestive diseases are similar to those in asthma, in terms of their symptomatic endpoints and rigorous control of disease (2). However, for inflammatory bowel disorders unlike in asthma, an additional endoscopic criterion which documents epithelial and mucosal recovery from disease is also included. The nasal endoscope provides similar characterization for the control criteria in CRSwNP, incorporating symptom control signifying clinical remission with endoscopic remission demonstrating normal sinonasal mucosa, which can also incorporate inflammatory markers highlighting biochemical remission.

A consensus statement from tertiary Canadian rhinologists has previously combined symptomatic and endoscopic assessments to define success after endoscopic sinus surgery (ESS), with ‘optimal’ results reported as absence of symptoms and normal appearance of the sinus mucosa on sinonasal endoscopy (3). However, it was unclear how frequently this ‘optimal’ outcome could be achieved. An estimate of remission rates in CRS care is now afforded by two recent studies in CRSwNP which employed a clinical endpoint very similar to the remission definition used in GI for inflammatory bowel diseases. The first study, a prospective trial which assessed outcomes after treatment of CRSwNP with endoscopic sinus surgery (4), and the second, a double-blinded, placebo-controlled prospective trial evaluating refractory CRSwNP managed with long-term, low dose azithromycin (5).

After ESS, clinical endpoints resembling remission were attained in 50% of all subjects, but with different rates of remission for different populations distinguished by co-morbidities. At four months after surgery, 72% individuals undergoing primary ESS for CRSwNP attained remission, while those with a history of previous surgery showed lesser response, with a 42% remission rate. Asthmatic subjects did considerably

worse than non-asthmatic subjects: non-asthmatics attained remission in 60%, while patients with asthma or with aspirin exacerbated respiratory disease (AERD) only showed remission in 23% and 23.5% of cases, respectively. For the azithromycin trial, there was a 54% remission rate overall. Again, asthma was associated with a worse outcome: non-asthmatics had a remission rate of 88%, while asthmatics achieved only 38% remission, and only in 14% of AERD patients. Individuals demonstrating remission were characterized by parameters of epithelial recovery and healing, approaching those of optimal control as suggested for inflammatory digestive diseases (6).

Conclusion: Remission is indeed a concept that can be attained in CRSwNP, even in patients who failed previous surgery, as demonstrated by these findings. Some patient groups apparently have more difficult disease evolution, and asthma emerges as an important treatable trait in patients with CRSwNP. Better defining this outcome through consensus-based definitions will allow for the identification and stratification of clinical scenarios where patients have complete relief from their disease symptomatically in addition to biochemical and endoscopic normalization which penultimately achieving remission.

Respectfully submitted,

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Abbreviations

AERD: Aspirin exacerbated respiratory disease; CRSwNP: Chronic rhinosinusitis with nasal polyposis; ESS: Endoscopic Sinus Surgery; GI: Gastroenterology; OHNS: Otolaryngology – Head & Neck Surgery

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