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Unmet needs in biological treatment of CRS

Endoscopic Sinus Surgery has a 5-year treatment succes (defined as no revision) in patients with chronic rhinosinusitis with nasal polyps (CRSwNP) of 80% and is the most cost effective treatment of chronic rhinosinusitis (CRS). However, a small group of CRSwNP patients remains uncontrolled and needs repetitive courses of systemic corticosteroids and revision surgeries. Moreover, many patients with CRSwNP have residual (smell) symptoms although polyp growth is reasonably controlled.

Since 2,5 years, biological treatment is available for the treatment of CRSwNP. At this moment 3 biologicals are on the market: dupilumab, omalizumab and mepolizumab[1].

For asthma, other biologicals exist and these can be expected to be registered for CRSwNP in the future. The results of treatment with biologicals are spectacular, especially on smell and quality of life. In real life, polyps often disappear after treatment with biological in most patients[2]. However, the treatment is very costly[3]. In this issue of our Journal, Prof Claire Hopkins discusses the ethical dilemma's of prescribing such an expensive treatment. The need to benefit patients while avoiding harm respecting patient choice and achieving fair, equitable treatment of limited health-care resources are the four principles that underpin ethical decision making in clinical practice. Professional organizations including all stakeholders can help to propose criteria to make the treatment available for those in highest need.

EPOS2020 has proposed criteria for biological treatment in CRSwNP with emphasis on those patients that would benefit most but also societal aspects like reserving biological treatment for patients that fail regular treatment including surgery[4]. When following these criteria, a limited number of CRSwNP patients would be eligible for biological treatment[5, 6]. Important aspects in prescribing biological treatments are the need to measure disease control. In this issue, Phillips et al. investigate how to translate visual analogue scale (VAS) symptom scores to the symptom scales used in the EPOS criteria for disease control. Also, especially when comparing studies, are the differences in nasal polyp scoring systems. Djupesland et al. show in their paper the discrepancies in different scoring systems and the consequences when using them in comparative studies.

One of the aspects that also needs further research in the treatment with biologicals is the evaluation of smell. It is important to be able to predict which patients are able to regain smell because many patients have not been able to smell for years and CRSwNP is known to result in permanent smell loss. With the use of biologicals in daily practice, with often a great success on smell, we also realize that patients often indicate that they are able to smell but do not recognize smells especially in smell testing. This implies that smell testing should be both quantitative and qualitative[7]. Although we know that smell training is an important tool in helping patients to regain their smell function[8], we are not aware of studies evaluating smell training in CRSwNP patients treated with a biological. In this issue, a number of papers evaluate the smell loss and smell training in different situations of olfactory loss. Further studies are needed in biologics to define the best way to evaluate (cost) effectiveness. Disease control, with emphasis on smell and nasal blockage should in my opinion be important components.

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