

EPOS2020 and beyond

The EPOS2020 Steering group is proud to introduce the EPOS2020 logo, the key goals, the core stakeholders, the planned methodology and the dissemination strategies for EPOS2020 ⁽¹⁾. This article is an introduction to the EPOS2020 project and presents the ambitious goals of the latest European Position Paper on Rhinosinusitis including new and expanded areas of research, novel insights into the pathophysiology and molecular diagnosis leading to better endotyping of patients, precision medicine in chronic rhinosinusitis (CRS), integrated care pathways and mobile health technology in CRS. New concepts for dissemination of the guideline using Internet and social media are being presented, and will improve impact of EPOS2020 in daily practice.

Understanding the pathophysiology of CRS is key to the development of novel strategies for better diagnosis and treatment. The relative contribution of the immunologic role and barrier function of the sinonasal epithelium to the pathology of CRS is still unclear. Here, Cornet et al. ⁽²⁾ describe an aberrant gene expression profile in nasal polyp epithelial cells, with most genes linked to pathogenic mechanisms seen in neoplasm formation. From these data, one might suspect a major role of the nasal epithelium in CRS with nasal polyps (CSRwNP). On a microbiological level, the fungal component of microbiota in CRS is not well understood due to the lack of sufficient scientific efforts put into this important aspect of CRS. In this issue of *Rhinology*, Hoggard et al. demonstrate the abundance of *Malassezia* spp. in CRS with few distinctions between different CRS phenotypes. This study represents the largest sequencing-based study on the CRS-associated mycobiota to date.

Several aspects of rhinitis and rhinosinusitis merit more attention in daily care, including nasal hyperreactivity (NHR) and local IgE production. The diagnosis of NHR in both chronic rhinitis and CRS is often neglected, given the lack of availability of the device and/or lack of knowledge on the value of cold dry air (CDA) provocation. CDA provocation as diagnostic tool for NHR in non-allergic rhinitis patients is confirmed by Huang et al. In patients with chronic rhinitis, the underdiagnosed problem of local allergic rhinitis (LAR) is illustrated by Bozek et al. ⁽³⁾ in 17 sites in Poland, with a reported prevalence of LAR of 17,6% amongst the Polish population. Interestingly, house dust mite

seemed the most sensitized allergen in LAR, and both AR and LAR patients had a similar prevalence of concomitant asthma. A novel technique for improving care for patients with CRSwNP is presented by Moreno-Luna et al. An endonasal free mucosal flap, called mucosaplasty, was studied in a unique clinical trial in 10 patients. This study showed better outcomes at 6 months after surgery on the mucosaplasty side. The small size of the study and relative short follow-up warrant caution in overinterpretation of this pilot study. Safe endoscopic sinus surgery can only be achieved with good knowledge of the sinonasal anatomy, especially in the paediatric population. Cohen et al. describe the prevalence of known anatomic variations with regard to gender and age in the paediatric population. The report by Page et al. ⁽⁴⁾ confirms the clinical reality and suspicion of systemic absorption of atomised cocaine during endoscopic sinus surgery. The kinetics of the systemic presence of cocaine are worth considering at the time of administration.

Self-management is part of the daily reality of the therapeutic strategy for rhinitis, rhinosinusitis, and also epistaxis in those patients with Hereditary Hemorrhagic Teleangiectasia (HHT). Droege et al. studied a large group of HHT patients and report on the majority being able to manage the bleeding themselves with nasal self-packing. In case of failure of self-management and need for hospital submission for uncontrolled bleeding, Mehta et al. present the data of a national prospective observational study on inpatient management of adults with epistaxis ⁽⁵⁾. Patients who did not receive nasal cautery at first specialist review had a treatment time greater than double the time of those who were cauterized. Only 30% of patients received management that complied with new national guidance. The authors clearly indicate the importance of guidance in care leading to better control and shorter hospital stay.

The June 2019 issue of *Rhinology* offers the readers an exciting journey through different novel aspects of care for patients affected by nose and sinus diseases, and is again confirming the increasing quality of research being performed in this exciting field of medicine. Get inspired!

by Peter Hellings

References

1. Fokkens, Desrosiers, Harvey, et al. EPOS2020: development strategy and goals for the latest European Position Paper on Rhinosinusitis. *Rhinology*, 2019; 57: 3, 162-168.
2. Cornet, Kostamo, Rinia, et al. Novel roles for nasal epithelium in the pathogenesis of chronic rhinosinusitis with nasal polyps. *Rhinology*, 2019; 57,3, 169-179.
3. Bozek, Ścierański, Ignasiak, et al. The prevalence and characteristics of local allergic rhinitis in Poland. *Rhinology*, 2019; 57,3, 213-218.
4. Page, Rimmer, Keane, et al. Is atomised intranasal cocaine systemically absorbed during endoscopic sinus surgery? *Rhinology*, 2019; 57, 3, 200-205.
5. Mehta, Stevens, Smith, et al. National prospective observational study of inpatient management of adults with epistaxis – a National Trainee Research Collaborative delivered investigation. *Rhinology*, 2019; 57, 3, 180-189.