

From prevention to optimal treatment in chronic rhinosinusitis

Prevention of chronic rhinosinusitis remains a true societal challenge, as prevention of this highly prevalent non-communicable disease will significantly reduce socio-economic costs and improve the overall well-being of the large group of affected individuals. In alignment with the health priorities of national governments, prevention and cost-effective health care should be embraced by the Rhinologic community. In the 2018 December issue of *Rhinology*, Hopkins et al. ⁽¹⁾ clearly identify key areas of action for primary, secondary and tertiary prevention, allowing a structured action plan for the near future. The need for action is illustrated by Hoven and coworkers ⁽²⁾ highlighting the correlation between self-reported sino-nasal dysfunction and daytime sleepiness. Interestingly, associations were mainly found between symptoms of mucosal inflammation, like nasal discharge, headache, coughing and sneezing, rather than nasal obstruction. In addition, the impact of chronic rhinosinusitis exacerbations on work productivity and absenteeism is confirmed by the research work by Phillips ⁽³⁾. Besides prevention of chronic rhinosinusitis, also reduction of the complication risk of endoscopic sinus surgery is of paramount importance. Preti et al. ⁽⁴⁾ analyzed the risk of iatrogenic cerebrospinal fluid leak in relation to the Keros or Gera classification. The Gera classification turned out to be more sensitive to anatomical variations associated with cerebrospinal fluid leaks. In addition, Mak et al. ⁽⁵⁾ report on the value of staging systems predicting recurrent inverted papilloma, with the Han and Cannady staging being more valuable than other staging systems.

Promising novel surgical options emerge for patients with nasal valve dysfunction and medium-sized septal perforations. In a series of 32 patients ⁽⁶⁾, the butterfly titanium implant showed significant improvement of breathing, even with 28 out of 32 patients having had previous nasal surgery. Santamaria-Gadea

et al. ⁽⁷⁾ propose a modified simple and extended nasal floor and inferior meatus flap for the reconstruction of small and medium-sized septal perforations. Regardless of tumor stage, squamous cell carcinoma of the nasal vestibule can be treated primarily with surgery ⁽⁸⁾, with adjuvant radiotherapy only needed for advanced stage cancer.

Novel insight into therapeutic options is mandatory to better help those suffering from sinonasal disease. In patients with post-traumatic or post-infectious olfactory loss, olfactory training represents an effective treatment, with Hummel et al. ⁽⁹⁾ reporting for the first time the associated increase in electro-olfactogram responses to pleasant and unpleasant odors. In an attempt to further explore novel therapeutic pathways for anosmia, Li et al. ⁽¹⁰⁾ utilized olfactory neuroepithelial cells from embryonic rats to assess the effects of chitosan on neurosphere formation and differentiation of olfactory receptor neurons, with promising findings. Smell disorders in relation to drug intake in the elderly, has been studied by Ottaviano et al. ⁽¹¹⁾, confirming the clinical observation of correlation between the number of drugs taken for non-rhinologic conditions and smell impairment. Diving deeper into immune mechanisms of CRSwNP, Wang ⁽¹²⁾ reports on the regulation of eotaxin-1 production by Thymic Stromal Lymphopoietin (TSLP), linking epithelial immune activation to eosinophilic influx. Better insight in different inflammatory profiles found in CRSwNP and antrochoanal polyps is provided by Jin and coworkers ⁽¹³⁾.

Overlooking the excellent research work by different groups world-wide published in the latest issue of *Rhinology*, all members of the European Rhinologic Society should be very excited about the promising and dynamic field of Rhinology!

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