SCUAD in adult and pediatric population

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We address recent research findings on recalcitrant chronic rhinosinusitis (CRS) in relation to “Severe Chronic Upper Airway Disease” (SCUAD).

Complex pathophysiological mechanisms characterize various forms of chronic rhinitis and rhinosinusitis (CRS), where inflammation persists in spite of adequate medical treatment. In these cases, a multifactorial etiology often underlies the development of sino-nasal inflammation. The interaction between chronic upper and lower airway inflammation via neurogenic and systemic pathways may complicate the therapy of these patients, and lead to insufficient symptom control.

The recently introduced definition of “Severe Chronic Upper Airway Disease” (SCUAD) increases awareness of those patients with persistent inflammation and symptoms despite guideline-driven pharmacologic treatment. The concept of SCUAD may prove helpful in directing research towards clarifying the definition, diagnosis and pathophysiology of rhinitis and rhinosinusitis, their limits and overlap.

Pediatric SCUAD represents a heterogenous group of patients and has significant clinical and socioeconomic implications. Relevant literature is generally lacking and questions regarding definition and pathogenesis remain unanswered.

Accurate definition and acknowledgement of pediatric SCUAD cases may lead to better design of future clinical and molecular research protocols. This may provide improved understanding of the underlying disease processes, more accurate data regarding socioeconomic burden, and, above all, more successful treatment and prevention strategies.

A hypothesis on SCUAD immunopathology is also presented.