

GERD: An isolated problem or a part of disease syndrome

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Chronic rhinosinusitis (CRS) and Gastro-esophageal reflux disease (GERD) presenting as Laryngopharyngeal reflux (LPR) are a very common presentation in Otorhinolaryngological practice. CRS, especially those which are refractory to medical management have been associated with high risk of GERD. Some authors have even suggested that patients who are having both CRS and GERD have a poor outcome of CRS treatment. Pathophysiology of CRS and GERD share a lot of common factors. CRS, especially with nasal polyp shows eosinophilic infiltration in local tissues which also is seen in cases of GERD. Also inflammatory cell mediators are seen in high amount in both GERD and CRS.

Few attempts have been made in past to see correlation between CRS and GERD. A better understanding of pathophysiology and association of CRS and GERD would give us better insight into possible strategies for prevention, early diagnosis or early symptomatic relief of patients. Various authors have postulated that CRS with GERD is associated with higher BMI and especially female sex. Female sex has been seen a major risk factor for GERD in general population. IT was also postulated that patients with concomitant CRS and GERD have significant association with allergic rhinitis, asthma and these patients have a long duration of disease than individual diseases.

Patients suffering from CRS and GERD have increased nasal blockage, facial pressure, rhinorrhea and cough when subjected to SNOT 22 questionnaire. It has been hypothesized that GERD causes trauma to the upper respiratory tract mucosa due to gastric acid reflux. It has also been reported that autonomous nervous system is seen involved in CRS patients. As Gastrointestinal and upper respiratory tract share the same parasympathetic supply, it was postulated that it may explain the relation between two. In a experimental study it was noted that hydrochloric acid and normal saline infusion in lower esophagus of healthy individuals lead to increased mucous secretion and higher nasal inspiratory peak flow. This indicates that there is neural reflex between esophagus and nasal cavity. GERD is also significantly associated with diseases like allergic rhinitis and asthma. Crosssensitivity of IgE to common pollen and food allergens may be responsible to it. Eosinophils, a major part of pathophysiological cascade of CRS are also found in esophageal mucosa of patients of GERD. Few studies have found evidence of gastric acid

reflux up to the nasopharynx in patients with CRS and GERD. Acid can affect the integrity of epithelial barrier in the upper airways and increase mucous production, which can develop increased chronic inflammation in the paranasal sinuses and causes CRS.

Often the patients are treated for CRS or allergic rhinitis for a prolonged period of time but GERD is ignored as a life style disease both by the patient and clinician. It results in incomplete cessation of symptoms of allergic rhinitis and related conditions. Given the very high prevalence of GERD and all the various associations and problems which have been linked to it because of patient and clinician ignorance leading to late or inadequate treatment, it is need of the hour to have a proper understanding of current approaches to the early diagnosis and adequate and effective management. Keeping in view all the above mentioned associations, it is wise to attempt further research to investigate the mechanisms underlying the association of GERD and atopy in patients with CRS.

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Conflict of Interest

None.

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