Treatment of Rhinosinusitis

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Rhinosinusitis is defined as an inflammation of the mucosa of the nose and the paranasal sinuses. Based on the duration of disease, rhinosinusitis is classified as acute, subacute, and chronic. In this presentation, I will focus on the chronic rhinosinusitis. Before dealing with treatment of chronic rhinosinusitis (CRS), pathophysiology of CRS should be understood. Historically, ostial blockage leading to bacterial infection is believed to be a main cause of CRS. Since endoscopic examination improved our understanding of sinus physiology, any pathological lesions which hinder sinus ventilation and drainage are considered to develop rhinosinusitis. Predisposing factors of persistent mucosal inflammation which blocks normal physiology of the sinuses can be classified as environmental factors (pollution, allergens, bacteria, viruses, smoke, fume), general host factors (immune deficiency, mucociliary dysfunction), local host factors (polyps, tumor, anatomical variance). Therefore, treatment of RS should cover all of these predisposing factors. It includes reducing mucosal inflammation, controlling infection, restoring ventilation and mucociliary function. Early era of endoscopic sinus surgery, treatment of CRS was focused on the surgical removal of pathologic lesions which disrupt ventilation and drainage. However, it has been proved to be insufficient to restore normal physiology. Eosinophilic inflammation is one of the important features of CRS. To decrease eosinophilic inflammation is considered to be the key issue of the treatment of CRS. There is no one regimen for the management of CRS. Medical treatments such as steroid, antibiotics, antifungals, anti-allergy, supportive cares, environmental controls, surgical procedures should be tailored for each individual.