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Nasal Polyp

Nasal polyps are benign growths attached to the nasal mucosa by a broad or slim base. Their appearance resembles a grape, they are smooth, translucent with a shiny surface. Nasal polyps vary in size, but they are relatively 1cm. They are usually asymptomatic, painless and can be located anywhere in the nasal passage and sinuses, often near the eyes.

The etiology of nasal polyps is not defined but it is differentiated into three categories: localized, diffused, and systemic. These categories are characterized by different diseases and cells. “Localized nasal polyps are typically reactive from either inflammatory processes or neoplastic processes. Diffuse nasal polyposis is often seen in patients with CRSwNP. CRSwNP has multiple etiologies. In the western hemisphere, nasal polyps are mostly the result of T-helper 2 (Th2) cell-driven eosinophilia, immunoglobulin-E (IgE) inflammation, with elevated interleukin-5 (IL-5), often associated with environmental and/or seasonal allergic triggers. Patients with cystic fibrosis tend to have neutrophil-driven inflammation within their polyps, and can often have severe nasal polyposis without a distinct allergic trigger, though the clinical examination can be very similar... Additional proposed theories include a fungi-driven inflammatory process, as well as a massive inflammatory response triggered by exotoxins from *Staphylococcus aureus* infections. Finally, systemic nasal polyposis refers to patients suffering

from systemic diseases with nasal manifestations. Eosinophilic granulomatosis with polyangiitis (EGPA), formerly known as Churg-Strauss syndrome, and cystic fibrosis (CF) fall into this category (del Toro E, Portela J.). In other words, localized nasal polyps can be due to atypical masses of tissue growth due to abnormal cell division, or when cells live for longer than their usual lifespan or inflammatory processes caused by damage to the tissue. Diffuse nasal polyposis is associated with chronic rhinosinusitis which is the inflammation of the nasal sinuses due to infection or irritation lasting more than 3 months. Lastly, systemic nasal polyps are defined by the name, they are linked to systemic diseases that involve the nasal cavity.

Nasal Polyps are more prevalent in men than women in a 2:1 ratio, and they are most common in adults after the second decade of life. If seen in children it may be an indication of cystic fibrosis. The histological features include “pronounced hyperplasia of goblet cells, thick basement membrane with hyalinization, the presence of eosinophils and mast cells in the stroma; and edematous stroma. Stromas of these polyps will also have fibroblasts, inflammatory cells, and fluid that create pseudocystic spaces... These differences include the thin, less specialized appearance of the mucosa of paranasal sinuses, which have relatively few goblet cells and cilia.”(Bayan sultan al jobran). They are usually diagnosed with radiographs such as coronal ct scan and nasal endoscopy and what is seen on radiographs is a radiopaque mass on the sinuses. They can be mistaken for Sphenchoanal polyp and Antrochoanal polyp which is why the correct diagnosis is crucial for the right treatment to be delivered to the patients with these manifestations.

Bilateral nasal polyps are the most common and patients that present with them complain about nasal obstruction, congestion, loss of smell, snoring, watery or purulent discharge and other symptoms. After being diagnosed using assessments and subjective and objective clinical manifestations