

## **Acute, Chronic and Fungal Sinusitis from a Patient's Perspective with Hands-on Management Tips**

**Jeanette Arnold, RN MSN FNP**

For an estimated 31,000-37,000 people annually<sup>1</sup>, the Christmas season is a feast for the senses and soul: twinkling lights, echoes of good cheer and a plethora of comfort food...that they can't smell or taste. While enjoyment of seasonal food and drink is traditionally an integral part of the American holiday culture, one of the hallmark characteristics of chronic rhinosinusitis (particularly associated with nasal polyposis) is hyposmia or diminished sense of smell.<sup>2</sup> With decreased smell usually comes diminished ability to experience taste. Think about it- Where's the joy in a glass of eggnog if it tastes like muddy water? What good is gingerbread warm from the oven if it tastes like cardboard?

Because food always gets *my* attention, I felt it appropriate in the Spirit of Christmas to pull readers into the world of chronic rhinosinusitis and fungal sinusitis with an empathetic teaser related to food. Now that you're interested, cold facts from the National Institutes of Health report chronic rhinosinusitis as the sixth most commonly diagnosed chronic disease. For perspective, those statistics were gathered from pooled data reported by providers from both subspecialty and primary care practice. Additionally, chronic rhinosinusitis is associated with roughly 200,000 sinus surgeries a year<sup>3</sup>, although current recommendations are for surgical intervention only as a tertiary option.<sup>4</sup> According to the 2005 update by the Joint Task Force on Practice Parameters for sinusitis management, chronic sinusitis impacts quality of life in certain aspects even more-so than other chronic diseases such as COPD, angina and back pain.<sup>4</sup> With those compelling thoughts in mind, I present a brief overview of acute sinusitis, followed next month by chronic sinusitis: when to consider a diagnosis of fungal sinusitis, diagnostic criteria and management options from a patient's perspective.

There have been several excellent articles published over the last several years that speak to the definition/classification, diagnosis, prognosis and management of chronic sinusitis and its sequale in an effort to diminish unnecessary use of oral antibiotics and subsequent community acquired microbial resistance rates. Shapiro and Rachelefsky were one of the first to illustrate major and minor criteria for sinusitis in 1992. More recently, the 2005 Sinusitis Parameter Update classifies sinusitis by duration of illness, recurrence rate and response to medication as Acute, Subacute and Chronic.

Acute sinusitis typically lasts less than 4 weeks and initially is commonly associated with viral upper respiratory infections (non-eosinophilic rhinitis), allergic rhinitis and vasomotor or non-allergic eosinophilic rhinitis. One should suspect viral etiology in acute symptoms lasting less than 10-12 days. Imaging is not generally helpful during this acute phase, as sinus CT films can be abnormal with a common cold.<sup>5</sup> With adequate nasal drainage and hygiene, an oral antibiotic is seldom necessary.

From a patient's perspective, 10 days is still an awfully long time to feel miserable. Severe nasal congestion and complete nasal obstruction associated with the common cold often result in altered sleep quality which may contribute to overall malaise/fatigue and compromised immunological response.<sup>6, 7</sup> Subsequent mouth breathing in combination with post nasal drip (often with foul color, taste and/or odor) contributes to sore throat and hoarseness. There may be fever, cough, anosmia, facial pain, generalized body aches or headache.

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Let's face it: we live in a 'now' society. When we feel bad, we are often passive about our personal health, expecting our healthcare providers to 'fix it'. In many parts of the country, injections are thought to provide almost immediate relief for a myriad of ailments. Extensive patient education and a positive patient-provider relationship coupled with timely subsequent resolution of symptoms may help influence future expectations.<sup>8</sup> Although often considered 'supportive' care by many healthcare standards, several common sense measures may provide significant comfort to the sufferer and assist in establishing a positive mental attitude. Commonly, patient satisfaction is achieved by reinforcing proactive behaviors already in place, such as recommendations for 'plenty of rest', warm liquids, OTC analgesics, salt water gargles, steam inhalation, saline nasal lavage and tincture of time. In select cases, it is appropriate to recommend short term (no longer than 5 days) use of OTC topical nasal decongestants prior to intranasal corticosteroids to assist in medication penetration.

Providing information regarding the typical course of a viral illness is also often helpful. In our practice, we have found that patients are less likely to request an antibiotic if it is verbalized that discolored mucus does 'not always' mean a bacterial infection. Armed with the mantra of expectation, '3 days of clear mucus, 3 days of discolored mucus, then 3 days of clear mucus', phone follow up for worsening or persistent symptoms longer than 10 days is requested. Careful attention is directed to those with co-morbid conditions such as asthma and eczema which may flare with viral illnesses and hypertensive patients whose pressures may escape control under the influence of oral decongestants. Those with other underlying chronic sinus co-morbidities such as nasal polyposis and fungal sinusitis can also escape control under the influence of an acute URI and may need to 'step up' therapy temporarily. It may be helpful to provide a written 'plan' for exacerbations that the patient can institute at home at the first sign of flare.

For those cases where an antibiotic is needed, the updated Parameters offer guidance in regards to drug of choice and duration. Common consensus is that a 10-21 day course is necessary for sinusitis resolution. Improvement should be seen within 3-5 days; re-evaluation is necessary if no response is achieved. Complementary oral steroids are occasionally needed to promote drainage.

Subacute sinusitis usually refers to protracted or incompletely cleared acute sinusitis and has management components of both chronic rhinosinusitis and acute sinusitis. For the purposes of this article, we will focus the second half on chronic sinusitis with emphasis on fungal sinusitis.

**NEXT MONTH- CHRONIC SINUSITIS**

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<sup>1</sup> NIH online statistics 2006.

<sup>2</sup> American Academy of Otolaryngology -- Head and Neck Surgery. *Clinical Indicators Compendium*. Alexandria, Virginia: American Academy of Otolaryngology; 1999:23.

<sup>3</sup> Benninger, et al. Adult chronic rhinosinusitis: definitions, diagnosis, epidemiology, and pathophysiology. *Otolaryngol Head Neck Surg*. 2003 Sep;129(3 Suppl):S1-32.

<sup>4</sup> Joint Council of Allergy, Asthma and Immunology, The diagnosis and management of sinusitis: A practice parameter update. *J Allergy Clin Immunol* 2005; 116:S13-47.

<sup>5</sup> Small, CB, et al. Judicious Antibiotic Use and Intranasal Corticosteroids in Acute Rhinosinusitis. *American J of Medicine*. 2007 April; 120: (4) 289-294.

<sup>6</sup> Marshall GD. Neuroendocrine mechanisms of immune dysregulation: applications to allergy and asthma. [Ann Allergy Asthma Immunol](#). 2004 Aug;93(2 Suppl 1):S11-7.

<sup>7</sup> [Kurnatowski P, Putyński L, Lapienis M, Kowalska B](#). Physical and emotional disturbances in children with adenotonsillar hypertrophy. *J Laryngol Otol*. 2007 Nov 30;;1-5

<sup>8</sup> Brus DH, et al., Compliance in rheumatoid arthritis and the role of formal patient education. [Semin Arthritis Rheum](#). 1997 Feb;26(4):702-10