



The Liberty Bell

PIC QUESTION OF THE WEEK: 7/11/11

Q: What are the current recommendations for the management of tinnitus?

A: Tinnitus (L. for *tinnire* – to ring) can be defined as a buzzing, ringing, roaring, or whistling sensation heard by an individual without the presence of an acoustic stimulant. Individuals have variously described tinnitus as ranging from a low roar to a high squeal that may be constant or transient and affecting one or both ears. Specific pitches are dependent upon the location of tissue damage or the etiology of the condition. Tinnitus can be classified as subjective (only the individual can hear the sound) or objective (the sound can be heard by another using a stethoscope). A variant of this symptom is known as pulsatile tinnitus, a condition in which the individual hears their own heartbeat when lying down. It is more prevalent in males and those of advanced age and is experienced by more than 50 million people in this country. Numerous etiologies have been proposed for tinnitus, ranging from excessive ear wax and whiplash to middle ear infection and benign tumors. The most preventable of these factors is exposure to excessive noise. Several medications including aspirin, NSAIDs, proton pump inhibitors, SSRIs, and antibiotics such as cephalexin have been documented as causes of tinnitus. The initial step in managing tinnitus is identification and treatment of its underlying cause. This includes possible discontinuation of ototoxic medications, the use of hearing aids or cochlear devices, and protecting oneself from exposure to extreme noise. Another common technique is the use of masking devices that produce constant low-level sounds that distract the individual from the bothersome effects of tinnitus. The popularity of this option is increasing due to the availability of masking device applications (apps) for the iPod as well as masking technology installed within hearing aids. The severity of tinnitus may be reduced by decreasing the intake of dietary salt, avoiding stimulants such as tobacco, coffee, tea, and other caffeinated beverages, and additional periods of rest. Medications such as antihistamines, benzodiazepines, and anticonvulsants have been of minimal benefit in the treatment of tinnitus. Many patients now use homeopathic remedies to treat this symptom despite their lack of proven efficacy. Several support groups provide helpful information to assist patients with this disorder. Tinnitus continues to be an uncomfortable symptom/sensation for which there are no consistent solutions. The reader is encouraged to consult resources such as MedlinePlus for additional information on this topic (<http://www.nlm.nih.gov/medlineplus/tinnitus.html>).

References:

- American Academy of Otolaryngology - Head and Neck Surgery. Insight into Causes and Treatments for Tinnitus. <http://www.entnet.org/HealthInformation/tinnitus.cfm>. Accessed July 7, 2011.
- Holmes, DM. *The 5-Minute Clinical Consult 2011*, 19th edition. Philadelphia, PA: Lippincott Williams & Wilkins; 2010. http://ovidsp.tx.ovid.com.authenticate.library.duq.edu/sp-3.4.1b/ovidweb.cgi?&S=AEJCFPIEPDDDKOABNCBLNF OBCDAMAA00&Link+Set=S.sh.17%7c3%7csl_10. Accessed July 7, 2011.

Photo by: Trochaic: used under Creative Commons License; <http://www.flickr.com/photos/trochaic/3583516236/sizes/m/in/photostream/> (Accessed July 7th, 2011)

Nicole M. Paronish and Erin L. Polis, Pharm.D. Candidates

The PIC Question of the Week is a publication of the Pharmaceutical Information Center, Mylan School of Pharmacy, Duquesne University, Pittsburgh, PA 15282 (412.396.4600).