Hill Country

Ear, Nose, and Throat, P.A.

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Eustachian Tube Dilation

Eustachian Tube: The eustachian tube is a channel that connects the middle ear space with the nasopharynx. It aerates the middle ear system and clears mucus from the the middle ear into the nasopharynx. Opening and closing functions of the eustachian tube are important. Normal opening of the eustachian tube equalizes atmospheric pressure in the middle ear; closing of the eustachian tube protects the middle ear from unwanted pressure fluctuations and loud sounds.

Eustachian Tube Dysfunction: Eustachian tube dysfunction is a common medical condition which can lead to impaired quality of life due to a persistent sensation of ear fullness or plugged ear, ear pain, decreased hearing and the inability to tolerate air travel or scuba diving.

Problems Associated to Eustachian Tube Dysfunction: Negative outcomes which may later develop because of persistent Eustachian tube dysfunction include: a retracted ear drum, perforated ear drum, chronic drainage, or cholesteatoma (abnormal skin growth in the middle ear which may lead to hearing loss).

Traditional Treatment Options:

- Medical management with **nasal steroid sprays, decongestants (i.e. Sudafed), and anti-inflammatories (i.e. steroids and NSAIDs**) are often used for eustachian tube dysfunction, but without much evidence to support their effectiveness.
- Traditional surgical treatment options for eustachian tube dysfunction include **myringotomy with tympanostomy tube placement** in the tympanic membrane (ear drum). Although this may temporarily relieve symptoms, this option does not treat the underlaying cause of eustachian tube dysfunction and tympanostomy tubes often need to be replaced multiple times.

Eustachian Tube Dilation: Balloon dilation of the Eustachian tube is a FDA approved innovation for treatment of eustachian tube dysfunction. This surgical option involves inserting an Accelerant AERA balloon catheter through the nasopharynx and into the eustachian tube under general anesthesia. The Catheter is then inflated for a short time (1-2 minutes), dilating the eustachian tube, and then removed. Numerous studies have demonstrated the safety of the procedure. Surgical success has also been measured throughout various studies. One study found significant improvement in 71% of patient 2 month post-operatively, 73% at one year, and 82% at 2 years post- operatively.

Risk: Potential risks associated with eustachian tube balloon dilation including tissue and mucosal trauma, infection, possible carotid artery injury, or anesthesia risks.