Introduction

The first modern era researcher of the Eustachian tube (ET) was Bartolomeus Eustachius. He was a 16th century anatomist who taught at the Collagia Della Sapienza in Italy. Eustachius, for whom the ET is named, studied several areas in the human body including the ET **(Shampo& Kyle, 1981).**

Further work was done by Antonio Valsalva. Valsalva was a Professor of Anatomy at Bolognia and is most recognized for his middle ear insufflating maneuver that bears his name. Valsalva was credited for naming the auditory tube, the Eustachian tube and describing its function **(Valsalve, 1970).**

Adam Politzer is probably best known for his contribution to otology and probably considered the greatest otologist of the 19th century. One of his legacies was a hand-held air bag that allowed insufflations of the middle ear space or politzerization. Further therapies developed by Politzer included a primitive middle ear ventilation tube **(Danner& Seibert, 2006).**

Otitis media is the most common reason for child visits to the primary care physician and affects more than 80% of children under the age of 3 years. Annually, more than $5 billion is spent in the United States on otitis media **(Gates, 1996).**

Otitis media remains one of the important clinical problems in otolaryngology. Conventional medical therapies for acute otitis media and otitis media with effusion (OME) include antibiotic, decongestants, auto inflations and intra nasal steroids.

As a result of failed medical intervention, 1 million child annually in the United States undergo myringotomy with insertion of a tympanostomy tube. It is the most common surgical procedure requiring general anesthesia performed to children **(Chandrasekhar& Mautone, 2004).**

Societal costs of otitis media include hearing loss, learning delay and absence from school and work. As well, over prescription of anti microbial agents raises the spectrum of antibiotic-resistant organisms **(Bauchner et al, 1999).**

This study is made to determine the efficacy of corticosteroids (systemic or local) in the treatment of OME.

Meta-analysis would be the statistical method used in this study to determine the efficacy of corticosteroid in the treatment of otitis media with effusion.

Meta-analysis is a quantitative statistical procedure that synthesizes finding across many studies, overcoming the problems of small samples and diverse outcomes and programs. According to **Tobler (1986),** the computation of the effect size is dependent on statistically significant results. Instead of

discounting the studies whose results do not reach statistical significance, as would be the case in a literature review, the quantitative results of each study are converted into a common metric (effect size). Thereby allowing comparison of results across studies **(Tobler, 1986).**