INTRODUCTION

Chronic suppurative otitis media, a common sequal of neglected acute otitis media, recurrent pharyngitis or Eustachian tube dysfunction, is known for its association with ear drum perforation. Different operations have been advocated for the treatment of this complication and restoration of the conductive hearing system among these is myringoplasty. Myringoplasty by definition is an operation performed to repair or reconstruct the tympanic membrane, often incorrectly referred to as (type 1 Tympanoplasty) ***(Frootko, 1985)***. Exploration of the middle ear and ossicular chain is a routine part of most myrignoplasty operations ***(Sheehy and Anderson, 1980)***.

Since the introduction of typmpanoplasty in 1952 by ***(Zollner and Wullstein)***, different methods and grafting materials have been promoted in tympanoplastic surgeries. Four types of grafts can be defined according to genetic relationship between the host and the donner (Autograft, isograft, Allograft, xenograft) ***(Nicholas and Frootko et al, 1997)***.

Autolgous temporalis fascia, composite perichondrium and cartilage from the concha or tragus are used most often for tympanic membrane reconstruction. The materials can be obtained easily during the operation and not represent any

infection risk compared to preserved grafts ***(Rudolf Probst, 2005).***

Temporalis fascia remains the most frequently used (***Milewki,1993***).

Jansen (1963) and Salen (1968) were the first who reported the use of cartilage composite grafts for tympanic membrane reconstruction. Although cartilage is similar to fascia in that it is mesenchymal tissue, its more rigid quality tends to resist resorption and retraction, even in the presence of continued Eustachian tube dysfunction. The acceptance of routine reconstruction of the tympanic membrane with cartilage has been hampered by its putative detrimental impact on hearing. Although the initial hearing results appeared good ***(Dornhoffer, 1997).*** There is lake of studies which compare the cartilage with other graft materials with respect to hearing. In cases of severe tympanic membrane retraction, alelectasis, cholesteatoma, or perforation in the setting of Eustachian tube dysfunction, cartilage tympanoplasty has been shown to be a safe alternative to temporalis fascia or perichondirum grafting ***(Gerber et al., 2000).***

The term allograft refers to tissue transplantation between genetically non-identical membrane of the same species. Examples included human cadaveric tympanic membrane with or without attached ossicles ***(Minatogowa et al., 1990),*** a cellular human dermal allograft which is a homologous material

harvested from human skin, with the removal of the cellular element, resulting in a sheet of an acellular material consisting of human collagen as it appears in the human derims. This material has been FDA approved for augmentation of soft tissue defects and human dura matter ***(Albrite and Leigh, 1966)***.

Popular techniques for closure of tympanic membrane perforation include either an underlary or an onlay approach. However both techniques require canal skin incisions with associated morbidity and postoperative care. A transcanal onlay butterfly cartilage technique has demonstrated several practical advantages (***Mauri et al, 2001***).