

Single-Centre Experience Of Using Biodesign Graft In Myringoplasty And Mastoid Surgery

Ms Shadaba Ahmed

ENT Consultant FRCS/ORL-HNS, DLO

Abstract

Tympanic membrane perforation (TMP) is a common condition encountered in otological practice. TMP causes include; otitis media, acoustic trauma, ventilation tube insertion, foreign body in the ear canal and cholesteatoma. The majority of acute TMPs heal spontaneously through epithelial proliferation and connective tissue growth. Failure of this healing process can lead to chronic TMPs. Chronic TMP can be associated with recurrent ear infections and hearing loss and in such circumstances myringoplasty may be indicated. In chronic TMP there may be a reservoir of infection in the mastoid bone requiring a cortical mastoidectomy.

Numerous graft types have been trialled for myringoplasty such as paper patch, adipose tissue, vein graft, fascia lata, temporalis fascia (TF) and tragus or conchal bowl cartilage/perichondrium. Currently, the most widely used graft material is TF due to its abundant supply and biocompatibility. The success rate for TF tympanoplasty is up to 94%.

Over recent years a bioactive material derived from porcine small intestinal submucosa (SIS) has been introduced into surgical practice, an example of which is Biodesign®. This natural extracellular matrix, formed of collagen, proteoglycans and glycosaminoglycans, provides a scaffold for host cells to remodel into the required tissue whilst maintaining signalling factors to guide growth and has not been shown to provoke an immune response in the recipient. SIS has been used with success in vascular grafts, skin grafts, complex wound healing, and repair of bladder and abdominal wall defects. In Otolaryngology, SIS has mainly been used for nasal septum perforations, dural repair, as well as myringoplasty. In a small study of nasal septal perforation repairs using SIS, Ambro et al demonstrated a 100% success rate and reported the material is "easy to work with".

The aim of this study was to evaluate our success rates and experience of Biodesign® for TM grafting in myringoplasty and mastoid surgery.

Biography:

Ms Ahmed graduated in 1984 from Dow Medical College and in her training years rotated through all the major teaching hospitals in North West London. She initially trained in Head & Neck cancer surgery; thereafter in Otolaryngology and Salivary Gland surgery. Ms Ahmed is now a full-time ENT Consultant in the Morecambe Bay Trust and has worked with them for about 16 years. She performs all mastoid surgery, most other forms of ear surgery and is the only ENT Surgeon at Morecambe Bay Trust undertaking salivary gland surgery, particularly of the parotid gland. She has also trained in sialendoscopy which is an endoscopic; organ preservation approach to salivary gland pathology. Ms Ahmed is deeply involved in education, teaching and

training both at Lancaster University and within the Trust where she has run an ENT Study Day for nine years. She is Honorary Lecturer and Honorary Teacher at University of Lancaster and University of Liverpool and has recently published a book for final year medical students. In addition, Ms Ahmed has published more than 50 papers and presents regularly in National and International meetings.

Ms Ahmed is Editor of the Morecambe Bay Journal and sits on the local negotiating committee LNC of the BMA for Morecambe Bay Trust.

References :

1. Srivastava, Neha & Shadab, Ahmad & Shukla, Gaurav. (2012). Yokto (10-24V) Instrumentation Amplifier. 116-121. 10.1109/ICCCT.2012.31.

Citation : Ms Shadaba Ahmed ; Single-Centre Experience Of Using Biodesign Graft In Myringoplasty And Mastoid Surgery ; Otolaryngology 2021 ; March 25, 2021 ; London , UK.