Model Myringotomy Practice Set: A Do-It-Yourself and Inexpensive Alternative

ABSTRACT

Objective: To develop a simple, portable, inexpensive model for otolaryngology trainees to practice on and develop skills required for myringotomy and tympanostomy tube insertion.

Materials and Methods: Recycled plastic egg crate, a 3-cc plastic syringe, micropore™ tape and modeling clay were used to create a model to practice myringotomy and tympanostomy tube insertion utilizing tubes fashioned from a recycled 18 guage intravenous catheter.

Result: The model myringotomy practice set is an inexpensive, simple do-it-yourself device made of locally available, mostly recycled materials.

Key words: myringotomy practice set, myringotomy, middle ear ventilation, tympanostomy, tympanostomy tube insertion, instrumentation

Myringotomy with or without tympanostomy tube insertion is a common ambulatory procedure performed by otolaryngologists. It is usually indicated for otitis media with effusion, and other specific manifestations of eustachian tube dysfunction and middle ear pathology.

Although the procedure is relatively fast, safe and easy, it still requires appropriate microsurgical skills. Unlike temporal bone dissection for learning mastoidectomy, training for myringotomy is difficult if not impossible to do in locally-available cadavers due to hardened and desiccated tissues. Models for teaching myringotomy have been developed but are usually expensive and not readily available especially in our local setting. Otorhinolaryngology residents are usually introduced to myringotomy by observation followed by practice on actual patients, with all the attendant risks and complications associated with the learning curve. We aimed to develop a simple, portable, inexpensive model for trainees to practice with and develop the skills required for myringotomy and tympanostomy tube insertion without compromising patient safety. The materials for this model are readily available and are inexpensive.