

Stapes Surgery Teaching Tool: A Simple, Stable and Successful Technique

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Abstract Stapes surgery is a highly skilled surgery among otological procedures and needs a good dexterity. To improve the skills one may need to do procedures using temporal bone dissections. We describe a procedure that is simple, inexpensive and improves the skills and can be done using easily available materials like disposable syringe, stapler pin and a forceps.

Keywords Stapes surgery · Teaching tool · Syringe · Stapler pin

Prosthesis placement in stapes surgery is difficult to master. Although temporal bone dissection is an important adjunct to operative experience and anatomic knowledge in training practicing surgeons and residents to perform this procedure, the high cost and scarcity of temporal bones limit their availability as teaching tools.

Stapes surgery is a highly skilled surgery among otological procedures and needs a good dexterity. To improve the skills one may need to do procedures using temporal bone dissections. We describe a procedure that is simple, inexpensive and improves the skills and can be done using

easily available materials like disposable syringe, stapler pin and a forceps. This minimizes time, can be done just before the surgery and whenever we find time this can be repeated, but this is not a substitute for temporal bone dissections.

Author uses a disposable syringe in which a bent disposable needle is fixed to the barrel and multiple fenestrae are made for placing the distal end of the piston, and the bent needle is used as Incus (Fig. 1). Stapler pin is used as stapes piston (Fig. 2) with one end bent to form a loop while the other end acts as the shaft (Fig. 3). With the use of a micro-forceps the trainee attempts to place the piston into the fenestra and loop its upper end over the needle shaft, which acts as long process of incus. Repeated performance of placing and removing the piston one can improve the surgical skills and performing few times even before surgery will make the surgeon confident and well versed with the movements of the surgical steps. This method is simpler, does not require any preparations like temporal bone dissections, done with easily available things and can practice anywhere whenever one finds the time.

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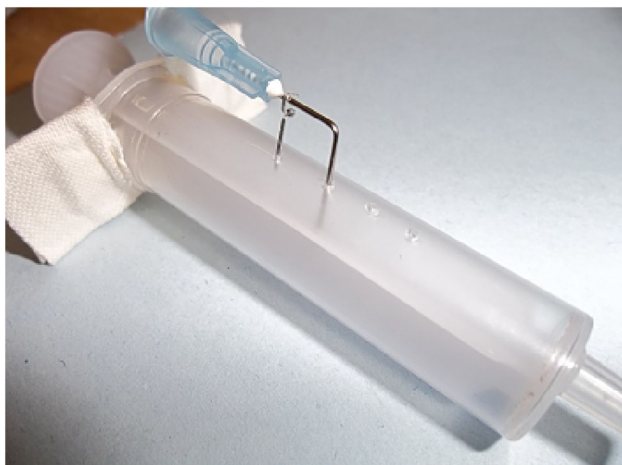


Fig. 1 The bent shaft of the needle acts as incus



Fig. 2 Stapler pin shaped as piston

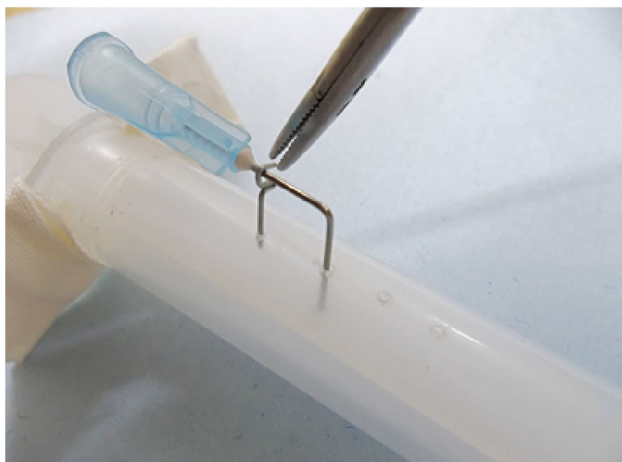


Fig. 3 Staple-piston placed into fenestra using forceps and hooked on shaft of needle

Compliance with Ethical Standards

Conflict of interest None.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.