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Simple insertion of tympanostomy T-tube

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ABSTRACT

INTRODUCTION

T-tubes are commonly utilized by otolaryngologists to provide long-term ventilation to the middle ear space. While successful in this regard, they are challenging to insert into the myringotomy due to their configuration and particularly in patients with narrow external ear canals. In this descriptive work, we demonstrate a simple method for deploying a T-tube into the middle ear space atraumatically and quickly.

DISCUSSION

We have found this to be a useful method of placing T-tubes and is now our preferred technique, particularly in patients with challenging anatomy or atelectatic middle ear spaces. It is also useful to the trainee as it does not require nearly the manipulation as is generally encountered when using the classic technique with an alligator forceps and Rosen needle. The primary benefit is all of the equipment is already on the myringotomy set with the exception of a #5 flexible suction catheter which is readily available in most operating room suites.

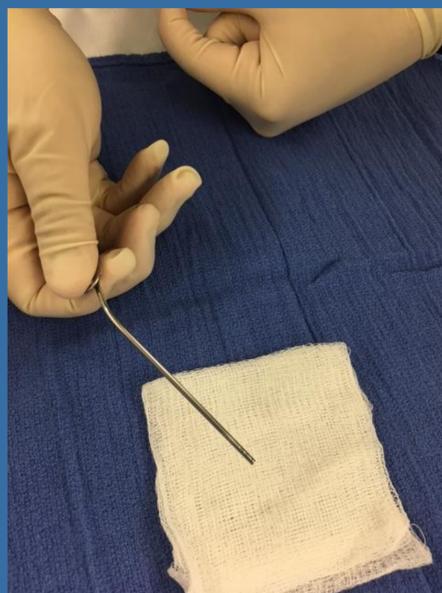
INTRODUCTION

T-tubes are commonly utilized by otolaryngologists to provide long-term ventilation to the middle ear space. While successful in this regard, they are challenging to insert into the myringotomy due to their configuration and particularly in patients with narrow external ear canals. In this descriptive work, we demonstrate a simple method for deploying a T-tube into the middle ear space atraumatically and quickly.

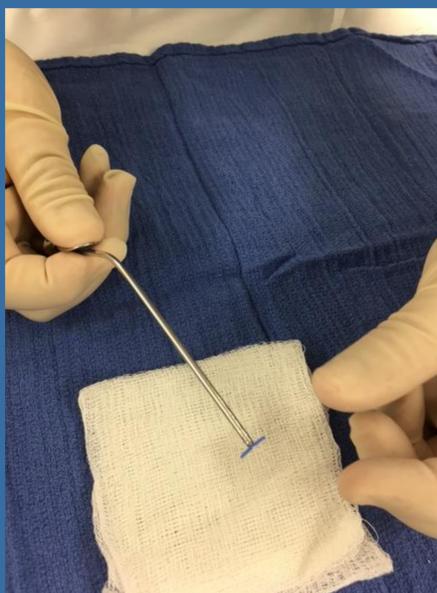
SURGICAL METHOD

Materials needed:

- T-tube
- Myringotomy knife
- #7 otologic suction
- 5 French flexible suction catheter



Step 1: After a myringotomy is performed in the standard fashion, a #7 otologic suction is obtained



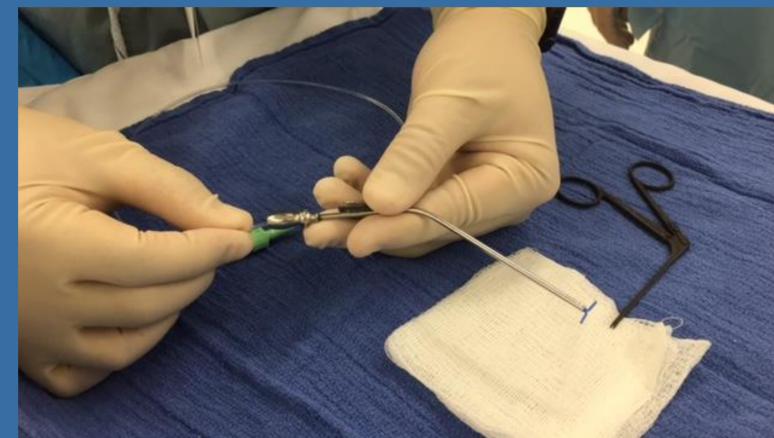
Step 2: The T-tube is loaded in the distal tip of the suction catheter



Step 3: The flanges of the T-tube are pushed inside the #7 otologic suction, such that they are aligned parallel with the body of the T-tube



Step 4: After the distal suction is positioned just lateral to the previously-made myringotomy, a 5 French flexible suction catheter is passed through the #7 otologic suction



Step 5: As the flexible suction catheter passes through the #7 otologic suction, it deploys the T-tube "feet first" into the myringotomy. The flanges then unfold on the medial surface of the tympanic membrane, already in position. The entire procedure can be easily visualized with the use of an operating microscope.

Discussion

We have found this to be a useful method of placing T-tubes and is now our preferred technique, particularly in patients with challenging anatomy or atelectatic middle ear spaces. It is also useful to the trainee as it does not require nearly the manipulation as is generally encountered when using the classic technique with an alligator forceps and Rosen needle. The primary benefit is all of the equipment is already on the myringotomy set with the exception of a #5 flexible suction catheter which is readily available in most operating room suites. Another advantage is the flexible suction can be easily used to suction out the tube once placed.

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