

Modification Of Endoscopic Montgomery T-Tube Insertion: The Challenge in Managing Difficult Airway

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We report a case of a 54-year-old lady with a history of subglottic stenosis Cotton-Myer grade 3 and tracheal stent insertion following dilatation of subglottic stenosis Cotton-Myer grade 3. She was electively admitted for removal of the temporary tracheal stent (modified ETT) and Montgomery T-tube insertion. Intra-operatively, the supraglottic and glottic areas appeared grossly oedematous, while the subglottic area was occupied with granulation tissues that grew above the tracheal stent, making it difficult to visualize the previous tracheal stent. After removal of the granulation tissue and the old tracheal stent, we also noted trachealis muscle prolapse anteroposteriorly, obscuring the tracheal lumen almost entirely, which made insertion of Montgomery T-tube rather difficult. We described our operative approach using HAVAS laryngoscope and a rigid bronchoscope size 7. A rigid bronchoscope size 7 was inserted through the mouth until the lower part of the stenotic segment, for it to work as a 'temporary stent'. This played a major role to keep the airway patent while inserting Montgomery T-tube via tracheostoma. Once the T-tube was in the correct position, the rigid bronchoscope was then removed from the tracheal lumen. Postoperatively, flexible nasopharyngolaryngoscopy (FNPLS) showed Montgomery T-tube remained in its position and patent. There are various techniques related to the insertion of Montgomery T-tube. We proposed this technique due to a severe prolapse of the trachealis muscle anteroposteriorly, obscuring the tracheal lumen. Our technique is safe and can be used as an alternative method if the Montgomery T-tube is unable to be placed by the usual endoscopic technique.

Keywords: Montgomery T tube, subglottic stenosis, trachealis muscle

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