

# Open Access Scientific Reports

Research Article

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**Keywords:** Long multisegmental tracheal stenosis; Combination of endoscopic and surgical technique

**Abbreviations:** PostTS: Posttracheostomy Tracheal Stenosis; PostINT: Postintubation Tracheal Stenosis; T-E st: Tracheo-

Citation: Pereszlenyi A (2013) Management of Long Multisegmental Tracheal Stenosis by Combined Endoscopic and Surgical Technique. 2: 630  
doi:

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where its radical segmental resection is not feasible or performable had combined (posttracheostomy and postintubation stenosis) and 4 these are the three situations wherein the T-tube can be inserted, as: patients had benign tracheo-esophageal stulae. All of these patients already underwent successful segmental tracheal resection with end-to-end anastomosis and their T-tubes were definitively removed.

- a temporary stent before segmental resection
- a temporary stent after segmental resection
- a single intervention—generally in all patients with long and multisegment stenoses, and also in those with severe comorbidity, where the radical segmental resection is not feasible. Standard indication criteria are shown in Table 1.

To complete this section, it has to be mentioned that, in general, tracheal stenosis can be managed in three different ways, including segmental tracheal resection, endoscopic stenting, recanalization by direct techniques (stenotic segment dilatation with discision/excision of stenotic granulated tissue surgically, or by laser evaporation).

As was already stated in the Introduction, the management of tracheal stenotic lesion always requires an individual approach considering not only the local (tracheal wall) but also the general condition of the suffering individual.

## Results

In all kinds of trachea reconstruction, a relatively good toleration of silicone material was observed. The Silicone T-tube causes minimal complications. Obstructions of the T-tube by dense sputum, which required the T-tube removal and its replacing by a double-coated tracheotomy tube, were the most common complication. The location, where most complications occurred was the upper part of the T-tube, in the place from where it was inserted to subglottic area. Here, irritations and granulations could be sporadically observed. It is really difficult to estimate the correct length of the upper end of the T-tube's vertical branch. For this reason, it was necessary to perform endoscopic checks with the adjustment of the tube's upper end (due to the close position of vocal cords, and due to a necessity of granulations' overbridging). After inserting the T-tube's upper vertical part through vocal cords and its long-term positioning in this area, no significant changes of vocal cords were observed. After the removal of the tube, the patient's voice spontaneously appeared, even though it was not always clear.

In accordance with our standard indications criteria (Table 1), the following results were recorded:

- In 13 patients, the T-tube was used as a bridge to definitive reconstructive surgery. As it is illustrated by our case report, these are those patients with active coexisting medical conditions or severe deconditioning following their extended ICU stay and/or in acute injured trachea by previous interventions (tracheotomy, intubation etc.). From among these cases, 5 patients had posttracheostomy stenosis, 4 patients

