Repair of Central Airway Collapse

Central Airway Collapse Repair Method

A new method to repair collapsed central airways (trachea and main bronchi) includes inserting a prosthesis that mitigates some of the current stents used to open the airway. The method also applies radiofrequency energy to remodel the muscles of the trachea.

Limitations of Current Central Airway Therapies

While inherited central airway collapse is relatively rare condition found in children, it is becoming more recognized as an acquired condition among adults and is especially common among asthma and/or COPD patients. Central airway collapse can further exacerbate these conditions, increasing odds of hospitalization due to respiratory difficulties.

Current therapies are limited and have many drawbacks:

- Continuous positive airway pressure (CPAP) systems are difficult to use and are immobile, requiring the patient to remain stationary.
- Metal and silicone stents need frequent bronchoscopic checks to ensure they have not migrated or broken and if granulomatous tissue develops, permanent placement of stents is not allowed except in terminal cases.
- Surgery can stabilize the tracheal lumen and improve quality of life, but perioperative surgical mortality remains at 5-6%, even on carefully selected patients.
- An experimental means of stabilizing the posterior membrane with a laser has been developed but is only in feasibility testing and lasers have various safety and usability risks.

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BENEFITS AND FEATURES:

- Repairs collapse of the central airway (trachea and main bronchi)

APPLICATIONS:

- Treating central airway collapse

**Phase of Development** - Concept

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