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Benign Tracheal Stenosis. Therapeutic Response Required for a Disease with High Morbidity Burden

Estenosis traqueal benigna. Respuesta terapéutica necesaria a una patología con alta carga de morbilidad

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Tracheal stenosis is a dreaded complication in patients who have required prolonged mechanical ventilatory assistance (MVA) or its consequent tracheostomy. It results from ischemic injury to the mucosa caused by contact with the cuff inflated at a pressure exceeding capillary perfusion, leading to prolonged pressure injury. This corresponds to a scarring process of an inflammatory granulomatous type that is generally progressive.[1, 2]

As Ruiz et al highlight in this issue of the journal, this condition is potentially preventable, since the proper use of immediate post-intubation care protocols significantly reduces the occurrence of these lesions, which act as contributing factors to post-MVA comorbidity, leading to a difficult course in airway rehabilitation.

In this study, the authors address the complexity involved in selecting patients who are suitable candidates for the surgical resolution of airway stenosis, emphasizing the importance of having multiprofessional teams with sufficient accumulated experience from case reports in order to achieve better postoperative outcomes.

Tracheal surgery, when performed under strict inclusion criteria, has proven to be an effective therapeutic option, with an acceptable rate of potentially remediable complications. It substantially improves patients' symptom perception and the associated functional limitation, while reducing related complications.

It is also important to highlight the need for appropriate technological support, including the flow–volume loop of computerized spirometry as a first indicator of fixed airway obstruction, flexible as well as rigid endoscopy with complementary therapeutic capability, and access to 3D reconstruction imaging with its potential for virtual endoscopic navigation.

Secondarily, there is the challenge of standardizing follow-up protocols for patients who have required airway instrumentation. This involves using computerized spirometry to objectively measure reduced PEF (peak expiratory flow) and PIF (peak inspiratory flow), suggesting evident fixed obstruction on the box –shaped flow–volume loop, which enables early suspicion and progressive monitoring, especially in oligosymptomatic patients, in primary care settings.[4]

I believe it would be of interest to plan a study comparing 3D tomographic reconstruction with tracheal ultrasound findings, evaluating sensitivity and specificity, as ultrasound is a less costly and more readily accessible practice that could serve as an indicator for referral to a specialized center for definitive management.

The article reflects the importance of collaborative multiprofessional work and interaction among various specialties to provide solutions with a high impact on our patients' quality of life.

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Conflict of interest

The author has no conflicts of interest to declare.

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