



## Successful treatment of obstructive tracheobronchopathia osteochondroplastica by argon plasma coagulation and rigid bronchoscopy

JM. Laca Forero<sup>\*a</sup> (Dr), PF. Garcia Mantilla<sup>a</sup> (Dr), A. Coz-Roncagliolo<sup>a</sup> (Dr)

<sup>a</sup> Inter Neumo, Lima, PERU

\* [josemiguelf@gmail.com](mailto:josemiguelf@gmail.com)

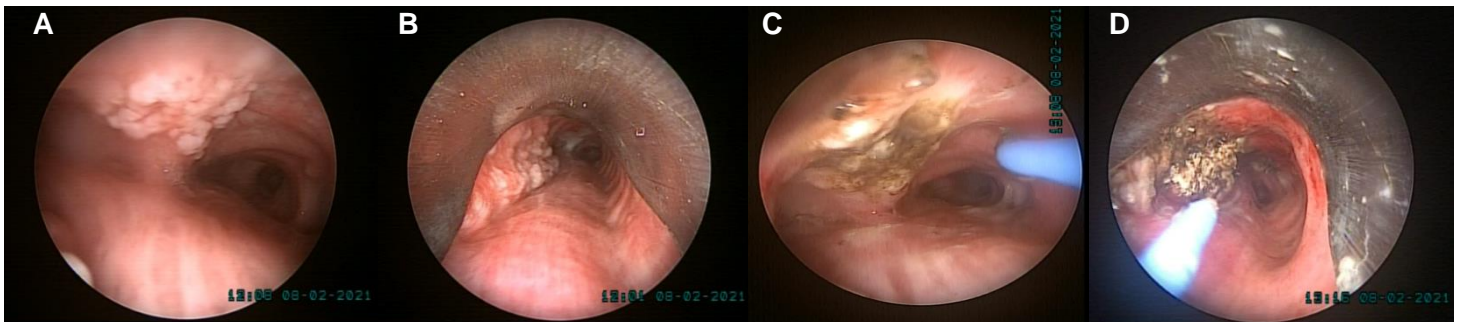
**Background:** Tracheobronchopathy osteochondroplastica (TO) is a rare benign illness, characterized by confluent osteocartilaginous nodules on the submucosa of the trachea and main bronchus that respect the posterior wall. This disease has a wide range of symptoms: chronic cough, dyspnea, stridor, hemoptysis, and recurrent airway infections. Patients may present from asymptomatic to severe airway obstruction. The diagnosis is made by tomography or bronchoscopy. There is no curative treatment but we can perform endoscopic interventions to relieve symptoms, for this reason we report this case.

**Case Report:** A 47-year old woman presents with cough, dyspnea on exertion, recurrent mild hemoptysis of one-year. Physical examination reveals inspiratory wheezing. Bronchoscopy demonstrates conglomerated white indurated nodular tracheal protuberances from the subglottis to the precarinal area with normal posterior wall. Histopathology shows nodular chronic inflammation of tracheal submucosa and osteocartilaginous tissue compatible with TO. Rigid bronchoscopy Thermoablation with Argon Plasma

Coagulation (APC) was performed using APC ® 2 Unit Erbe Elektromedizin GmbH, flexible 1.5 mm probe with integrated membrane filter, axial beam and pulsed APC mode effect 2 with 20 - 30 Watts, as well as biopsy forceps for debris removal. Soon after the procedure, the patient reports improvement of symptoms, resuming her daily activities. A follow-up bronchoscopy will be scheduled in 3 months. In case of residual nodules or recurrence, a second Bronchoscopy with APC will be performed.

**Conclusion:** APC is a technique used for thermoablation of endoluminal airway lesions. Using ionized Argon gas conducted through a probe onto the tissue. An electric current is produced generating a contactless thermal effect, thus resulting in a longer spark and more superficial propagation than conventional electro-surgery, making APC safer with lower perforation risk. The Rigid Bronchoscope helps the mechanical debulking of nodules while adequately securing the airway.

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(A) Nodular protuberances on lower trachea and carina. (B) Nodular protuberances on left wall of trachea. (C) Result of thermoablation with argon plasma on lower trachea and carina. (D) Result of thermoablation with argon plasma on the left wall of the trachea.