# Tracheal diverticulum

## Virtual and flexible bronchocopy views

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A 73- year old Caucasian male with a history of chronic cough was admitted to our outpatient clinic. On virtual endoscopy, administered prior to his examination, a congenital tracheal diverticulum, almost 3-4 cm above the level of carina was demonstrated (Figure 1). A flexible bronchoscopy followed. The procedure verified the presence of a tracheal diverticulum almost 4 cm above the level of the carina, located at the right posterior-lateral tracheal wall, filled with secretions (Figure 2).

Tracheal diverticulum is rare, can be considered as a supernumerary, malformed branch of the trachea and the histological structure resembles that of trachea. The frequency in some autopsy series has been estimated to 1% and a male predominance has been reported. They are usually asymptomatic, but in some cases chronic cough, stridor, dyspnoea, hemoptysis or repeated episodes of infection may be present.[1] Cases of recurred laryngeal paralysis, causing dysphonia and ineffective ventilation or pneumomediastinum due to perforation of the diverticulum have also described.[2,3] The differential diagnosis includes a laryngocele, a pharyngocele, a Zenker's diverticulum, an apical hernia of the lungs and apical paraseptal bullae. Computed tomography examination, including thin sections or reconstructed images, is the proper imaging modality. Bronchoscopy can establish the diagnosis, but diverticula with a narrow opening or just a fibrous connection with the trachea can be missed. Conservative measures, such as antibiotics, mycolytics agents and physiotherapy are proposed and surgical intervention is rarely advocated.[1]

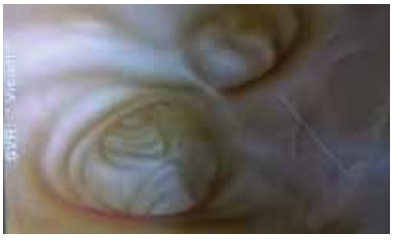

**FIGURE 1.** Virtual bronchoscopy view. The arrow indicates the tracheal diverticulum.

**FIGURE 2.** Flexible bronchoscopy view. The diverticulum is filled with secretions.

### REFERENCES

1. Soto-Hurtado EJ, Peñuela-Ruíz L, Rivera-Sánchez I, Torres-Jiménez J. Tracheal Diverticulum: A Review of the Literature. Lung 2006;184:303-7.
2. Infante M, Mattavelli F, Valente M, Alloisio M, Preda F, Ravasi G. Tracheal diverticulum: A rare cause and consequence of chronic cough. Eur J Surg 1994;160:315-6.
3. Dinner M, Ward R, Yun E. Case report: Ventilation difficulty secondary to a tracheal diverticulum. Anesthesiology 1992;77:586-7.

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