



## Complicated tracheal diverticulitis

Izabel de Oliveira Karam<sup>1</sup>, Daniel Vaccaro Sumi<sup>1</sup>,  
Eduardo Kaiser Ururahy Nunes Fonseca<sup>1</sup>

A 64-year-old female presented to the emergency department with neck pain and swelling. Further CT investigation revealed a hypodense mass in the right tracheoesophageal sulcus with mild peripheral enhancement and adjacent fat stranding (Figure 1A). The diagnosis of a tracheal diverticulum abscess was confirmed after reviewing a 9-year prior CT that revealed a tiny uncomplicated diverticulum at the same site (Figure 1B). An MRI confirmed the diagnosis showing significant restriction in diffusion-weighted images (Figures 1C and 1D). The patient then underwent echoendoscopy and bronchoscopy (Figure 1E), which revealed purulent secretion in the airway.

Tracheal diverticula are divided by their origin into congenital and acquired, both being mostly asymptomatic

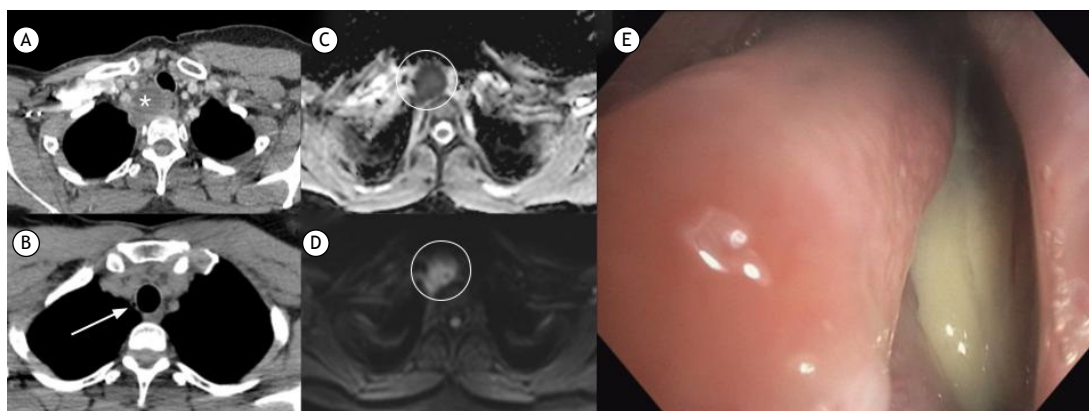
and incidentally found during imaging exams.<sup>(1)</sup> When present, the most common symptoms are cough, dyspnea, stridor, dysphagia, local tenderness, and dysphonia due to local compression.<sup>(2)</sup> Hospitalization or emergency treatment is rarely required.<sup>(3)</sup>

### AUTHOR CONTRIBUTIONS

DVS and EKUNF reported the case and idealized the article. All authors wrote and reviewed the article, reviewed the literature, and approved the final version of the manuscript.

### CONFLICTS OF INTEREST

None declared.



**Figure 1.** Panel A shows a hypodense mass (asterisk) in the right tracheoesophageal sulcus with mild peripheral enhancement and adjacent fat densification, suggestive of an abscess. A 9-year prior chest CT revealed an uncomplicated diverticulum at the same site (arrow in panel B). A diffusion-weighted MR image (panel C) and an apparent diffusion coefficient map (panel D) also confirmed the diagnosis of an abscess (circle in both panels). A bronchoscopy image (panel E) shows purulent secretion in the airway.

### REFERENCES

1. Tanrivermis Sayit A, Elmali M, Saglam D, Celenk C. The diseases of airway-tracheal diverticulum: a review of the literature. *J Thorac Dis.* 2016;8(10):E1163-E1167. <https://doi.org/10.21037/jtd.2016.10.92>
2. Teh BM, Hall C, Kleid S. Infected tracheocele (acquired tracheal diverticulum): case report and literature review. *J Laryngol Otol.* 2011;125(5):540-545. <https://doi.org/10.1017/S0022215110003026>
3. Akabane S, Kawachi J, Fukai R, Shimoyama R, Kashiwagi H, Ogino H, Watanabe K. A rare case of an infected tracheal diverticulum requiring emergency intervention: A case report. *Int J Surg Case Rep.* 2016;24:7-9. <https://doi.org/10.1016/j.ijscr.2016.04.051>

1. Departamento de Diagnóstico por Imagem, Hospital Israelita Albert Einstein, São Paulo (SP) Brasil.