

# Spondylodiskitis after Dilatation of Esophageal Radiation Stenosis: A Suspect for Metastasis



Jos A. Stigt, MD, PhD,<sup>a,\*</sup> Richard Vossenkaul, MD,<sup>b</sup>  
Wouter H. de Vos tot Nederveen Cappel, MD, PhD<sup>c</sup>

<sup>a</sup>Department of Pulmonology, Isala Hospital, Zwolle, The Netherlands

<sup>b</sup>Department of Radiology, Isala Hospital, Zwolle, The Netherlands

<sup>c</sup>Department of Gastroenterology, Isala Hospital, Zwolle, The Netherlands

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## Case Description

A 56-year-old woman underwent concurrent chemoradiotherapy for a T3N2M0 adenocarcinoma in the right superior sulcus. Four months after chemoradiation, restaging with endoscopic endobronchial ultrasound revealed no N2 disease. A lobectomy of the right upper lobe with lymph node dissection followed. No vital tumor was found.

The treatment was complicated by severe radiation esophagitis requiring long-term tube feeding. Hitherto, she underwent 15 esophageal dilatations with a Savary-Gilliard bougie dilator because of radiation stenosis.

Three years after therapy for NSCLC she was admitted for moderate back pain located between the shoulders and persistent low-grade fever for more than

2 months. The complaints started within days after her last esophageal dilatation.

Physical examination revealed no abnormalities. Her C-reactive protein level was 47 mg/L. Positron emission tomography showed uptake of fludeoxyglucose in thoracic vertebrae 2 and 3 and in the intervertebral disk

\*Corresponding author.

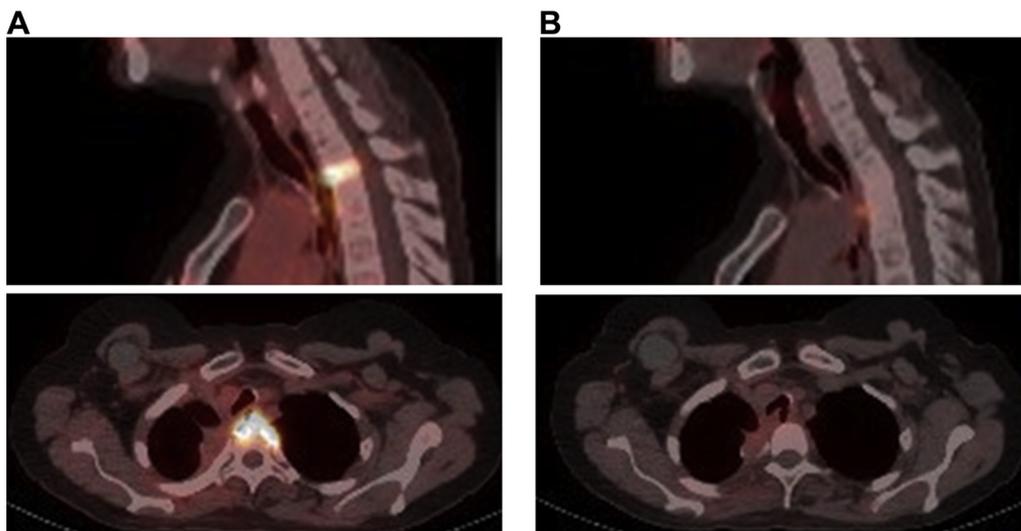
*Disclosure: The authors declare no conflict of interest.*

Address for correspondence: Jos A. Stigt, MD, PhD, Department of Pulmonology, Isala Hospital Dokter van Heesweg 2, 8025 AB Zwolle, The Netherlands. E-mail: [j.a.stigt@isala.nl](mailto:j.a.stigt@isala.nl)

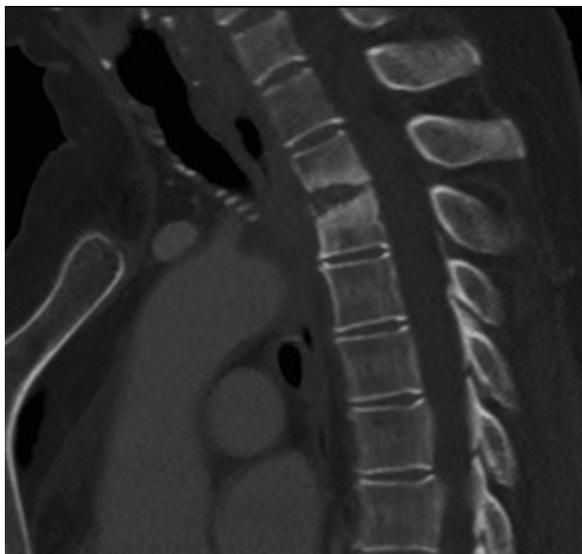
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**Figure 1.** (A) Positron emission tomography scan showing uptake of fludeoxyglucose in thoracic vertebrae 2 and 3 and in the intervertebral disk continuous with mediastinal soft tissue adjacent to the esophagus. (B) Positron emission tomography scan showing a marked decrease in fludeoxyglucose uptake after 1 month of antibiotic treatment.



**Figure 2.** Wedge-shaped widening of the adjacent thoracic vertebral bodies with a sclerotic aspect.

continuous with mediastinal soft tissue adjacent to the esophagus (Fig. 1A).

Computerized tomography (CT) showed wedge-shaped widening of the adjacent vertebral bodies with a regular sclerotic aspect (Fig. 2).

With endoscopic ultrasound performed by a thin endobronchial ultrasound scope, fine-needle aspirates were obtained from the diseased intervertebral region. Different species of bacteria were cultured (*Escherichia coli*, *Rothia mucilaginosa*, and various anaerobic species) and no malignancy was found.

After 4 weeks of treatment with amoxicillin/clavulanic acid and flucloxacillin, repeat positron emission tomography showed a marked decrease in fludeoxyglucose uptake (Fig. 1B).

Invasive diagnostic procedures, treatments, and trauma of the esophagus have been described as causes of infectious spondylodiskitis.<sup>1,2</sup> This case report describes infectious spondylodiskitis as a complication of esophageal dilatation. The findings of imaging of this patient are confusing, as the vertebral damage has to be differentiated from metastatic disease. The central mediastinal and anterior vertebral location seems difficult to approach, but endoscopic ultrasound is appropriate to guide aspiration of thoracic vertebral and paravertebral disease.<sup>3</sup> Several months of treatment with antibiotics is advised, although recurrence is not uncommon.<sup>4</sup>

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