Vertebral Osteomyelitis that Developed During Chemotherapy for Lung Cancer

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A 68-year-old man with high-grade fever, chills, and low back pain was admitted to our hospital. He was previously diagnosed with advanced lung cancer and underwent chemotherapy with carboplatin and paclitaxel. Additionally, a few days prior, he was treated for dental caries. A chest radiograph and urine test results showed no signs of infection. The patient’s laboratory examination results revealed elevated C-reactive protein level (18.60 mg/dL) and normal white blood cell count (6,100/μL). Blood culture yielded \textit{Streptococcus intermedius}, indigenous bacteria of the oral cavity, and magnetic resonance imaging (MRI) scan of the lumbar vertebrae showed contrast enhancement in the lumbar and sacral vertebrae and a spinal epidural abscess (Figure 1). An echocardiogram revealed no infective endocarditis. Accordingly, the patient was diagnosed with vertebral osteomyelitis (VO). Optimal antibiotic therapy was administered for 6 weeks, and the patient’s symptoms and MRI findings improved.

Almost all patients with VO have underlying diseases, including diabetes, immunosuppressive disorders, or cancer. VO is mainly a hematogenous infection often complicated by infective endocarditis. Our case may have been a hematogenous infection caused by dental caries treatment. When providing dental treatment for patients with cancer, particularly those undergoing anticancer chemotherapy, prophylactic antibiotic should be administered.

REFERENCES
Figure 1. Magnetic resonance imaging (MRI) scan of the lumbar vertebrae showing sagittal (a) and horizontal (b) sections. An MRI scan showing contrast enhancement in the lumbar and sacral vertebrae (L5 and S1, arrow a), destruction of the L5/S1 intervertebral disc, and spinal epidural abscess at the L4–S1 level (arrow b).

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