中文題目：同步放化療後的遲發脊椎骨髓炎

英文題目：Late complication of vertebral osteomyelitis from concurrent chemoradiation therapy for tongue Squamous Cell Carcinoma

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Introduction:

Vertebral osteomyelitis may occur from adjacent soft tissue infection, distant hematogenous spread, trauma, invasive spinal surgery or procedure. The incidence of vertebral osteomyelitis in the United States between 1998 and 2013 rose from 2.9 to 5.4 per 100,000. Case numbers are relatively rare in eastern country including Taiwan, especially after concurrent chemoradiation therapy.

We report a case of 69-year-old male with underlying disease of tongue cancer treated after concurrent chemoradiation therapy for more than 10 years and suffered from upper back pain for one month. He came to our clinic for help and ultimately diagnosed with vertebral osteomyelitis.

Case report:

A 69-year-old male with a history of diffuse B cell lymphoma post eighth CHOP((cyclophosphamide, doxorubicine, vincristine, prednisone) treatment 12 years ago and tongue cancer post wide excision and CCRT(adjuvant concurrent chemoradiation therapy) 11 years ago was admitted to our hospital because of upper back pain, general weakness, poor appetite, and productive cough.

The patient regularly followed up at clinics without relapse for more than 10 years. His activities of daily living is totally independent. He reported had mild upper back pain for one month before admission. One week before admission, general weakness, and productive cough was noted. He denied fever with chills, dyspnea, rhinorrhea, sore throat, abdominal pain, nausea, vomiting, and dysuria. Then, he went to the emergency department of this hospital for evaluation. He smoked cigarette 1 packed per day for 20 years and intermittently drank alcohol and betel nuts for more than 20 years and quitted for more than 10 years.

Initially, the patient was alert and fully oriented. The temperature was 36.1℃, no fever was noted. There was wheezing in bilateral lungs. Laboratory data revealed that white blood cell count and platelet count were normal, as were urea nitrogen, glucose, total protein, globulin, direct and total bilirubin, aspartate aminotransferase, alanine aminotransferase, and lactic acid and the plasma anion gap. But a high level of C-reactive protein, hyponatremia, hypokalemia, normocytic anemia were found. Postero-anterior chest radiograph showed no area of consolidation and no lobar collapse or pulmonary masses. Upper back pain progressed after being hospitalized for 2 days. Cervical spine MRI (Magnetic resonance imaging) showed vertebral osteomyelitis of Cervical spine(C5-C7) with paraspinal soft tissue involvement, need to rule out malignancy [figure 1]. We consulted

neurosurgeon for operation for tissue proof. The pathology report showed granulation tissue, favored chronic inflammation with fibrosis. The pus culture collected from tissue showed pseudomonas aeruginosa, compatible with blood culture reported. Cardiac echogram was arranged for infectious endocarditis showed no vegetation. After confirmed the diagnosis, the patient was treated with intravenous Ceftazidime and change to oral form Levofloxacin and then complete a 10-week- course antibiotics. He was able to walk without obvious complication without recurrent of infection for more than 1 year.

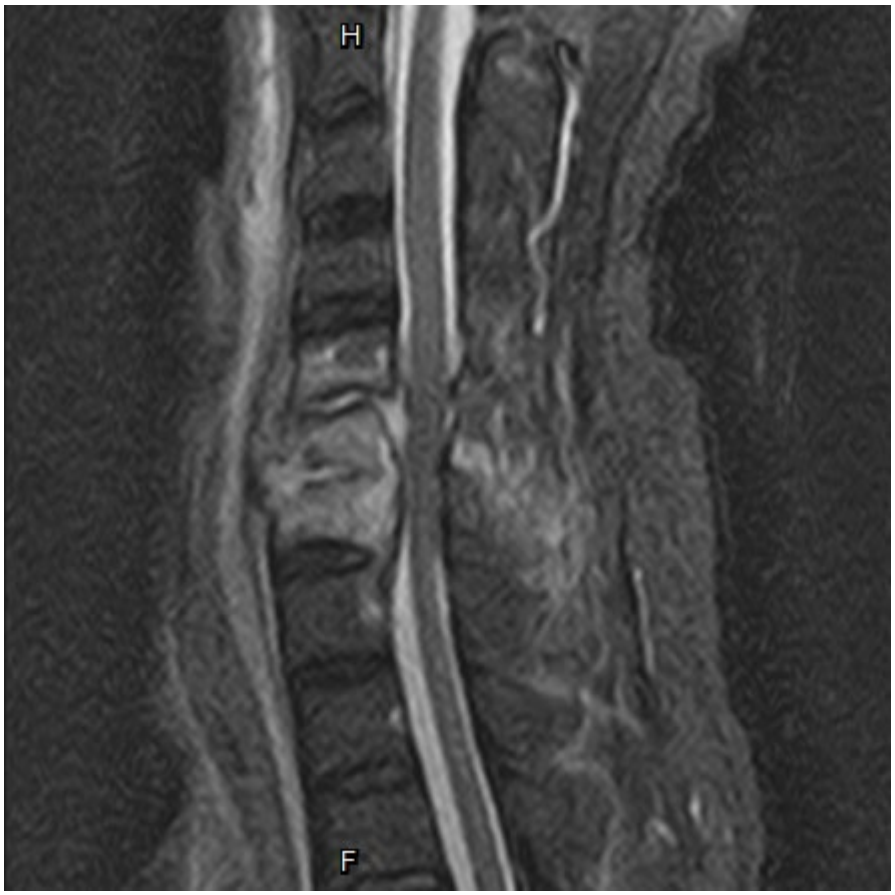

Figure 1. Vertebral osteomyelitis of Cervical spine(C5-C7) with paraspinal soft tissue involvement.

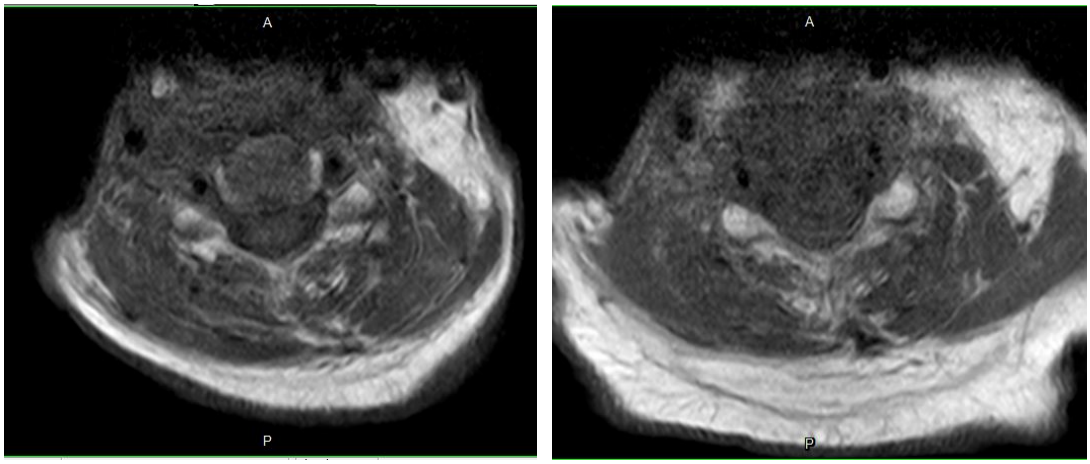

Figure 2. Coronal view of Cervical MRI C6, C7

Discussion:

Head and neck cancers are usually combined with radiotherapy to achieve good disease control. Potential complications such as osteoradionecrosis (ORN) and infection have been reported. A review of clinical manifestation of nasopharyngeal cancer after previous radiotherapy or surgery demonstrated the complications. The presentation of these complications(osteoradionecrosis (ORN) and infection) may be delayed (>10–20 years) and the clinical signs and symptoms can be subtle especially [1]. A similar case report was observed 2 years and 5 months after chemoradiotherapy following surgery for the treatment of tongue cancer. The initial symptoms were fever and posterior cervical pain. Bone destruction and abscess formation were observed at the C3 and C4 vertebral endplates. CT-guide puncture was done and the culture test revealed the presence of Streptococcus agalactiae. [2] We presented this case with no postoperative complications for more than 10 years after surgery, who suffered from upper back pain for one month and came to our clinic for help. Cervical spine MRI showed vertebral osteomyelitis of Cervical spine(C5-C7) with paraspinal soft tissue involvement. And surgery for tissue proof showed chronic inflammation with fibrosis Ultimately diagnosed with vertebral osteomyelitis. Tissue and blood cultural report showed pseudomonas aureus. Previous case reports of osteomyelitis and epidural abscess following radiation therapy for head and neck cancer with surgical treatment tended to have a good clinical course. [3] Our case concurred with previous reports showing good response after accurate diagnosis and full-course of therapy. Current case implied awareness of the rare complications in such kind of patient, especially long time after cancer therapy,

Conclusion:

We report a rare late complication of vertebral osteomyelitis from previous chemoradiation therapy for tongue cancer more than 10 years ago, which implied the awareness of such kind of complications, even long time after therapy.

References:

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