

## **Painful Brachial Plexopathy Due to Esophageal Cancer Metastasis: a Case report**

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### **Introduction**

Brachial plexopathy (BP) due to metastatic esophageal cancer is rarely reported. Initial clinical manifestations of BP are mostly pain and then hypesthesia and weakness. Treatment for the patients with painful BP due to neoplasm can be diverse depending on the location and severity of cancer invasion.

### **Case presentation**

A 78-year-old man visited the Physical Medicine and Rehabilitation outpatient clinic due to severe arm pain (numeric rating scale 9) with swelling at right upper extremity for 4 months. He also complaint progressively weakness of right arm and dyspnea. He had been diagnosed esophageal cancer 2 years ago and treated with chemoradiation therapy. One year after the treatment, the follow-up endoscopy and spiral chest computerized tomography (CT) showed complete resolution and stable stage of known lesions without adjacent lymph nodes enlargement, respectively. Physical examination revealed right shoulder subluxation with atrophic change at proximal upper extremity muscles and swollen forearm (Figure 1). Electrodiagnostic test detected right brachial plexopathy at whole trunk level. In imaging studies, we found severely invaded regional tumor at right supraclavicular lymph nodes with complete occlusive thrombosis in internal jugular vein (Figure 2, 3). We treated with opioid, paracetamol and gabapentin for his pain, and the patient's pain was improved by half.

### **Conclusion**

We report a severe and unique case of unilateral brachial plexopathy caused by esophageal metastatic cancer with internal jugular vein thrombosis.

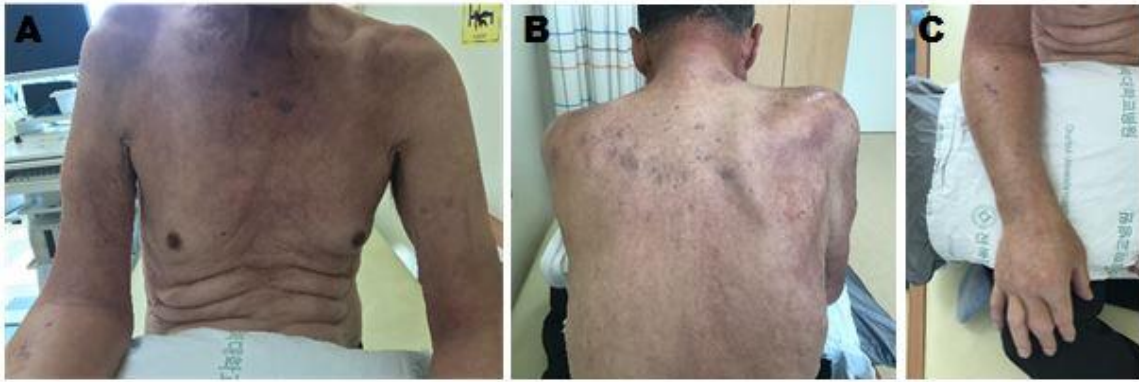


fig1. In physical examination, right shoulder subluxation and atrophic change of proximal muscle (A), winged scapula (B), and forearm swelling (C)

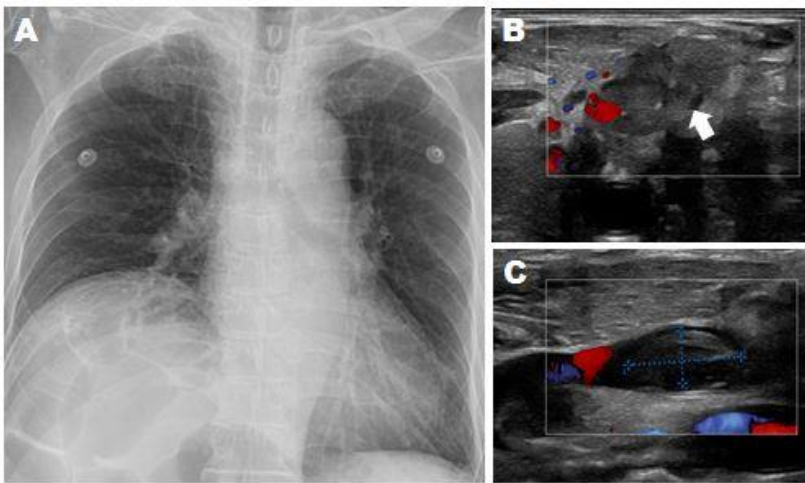


fig2. Chest X-ray showed right diaphragmatic palsy (A), Neck sonography showed heterogeneous mass like lesion at right suprascavicular fossa (B, while arrow) and 0.87 x 0.81cm sized thrombosis in internal jugular vein (C)

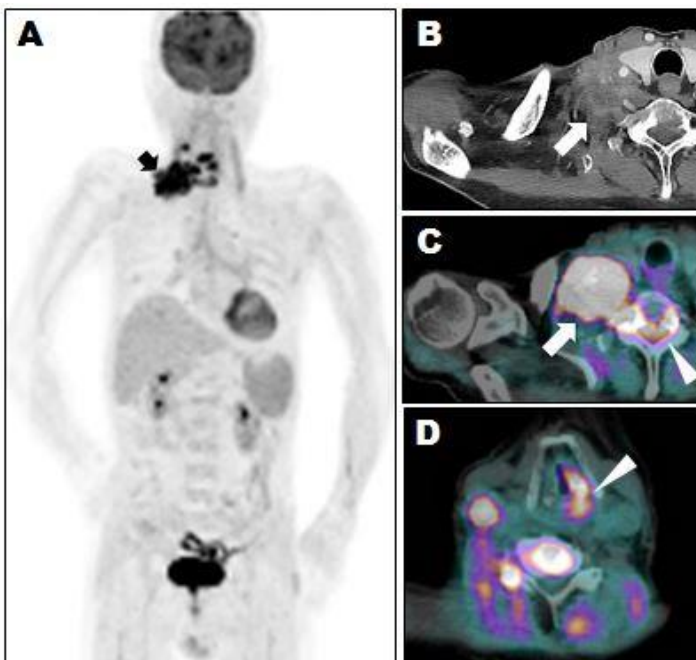


fig3. PET/CT confirmed metastatic cancer at right supraclavicular lymph node with adjacent structures (A, B), cervical vertebra at C6 and 7 (C), and vocal cord invasion (D)