

PET-CT로 우연히 발견한 큼직한 무증상 흉부 척수 신경집종: 1예보고

서울성애병원 핵의학과¹, 가톨릭의과대학 핵의학과²
박용휘¹ · 유이령²

A Large Asymptomatic Thoracic Spine Schwannoma Detected Incidentally by ¹⁸F-FDG PET/CT: A Case Report

Yong-Whee Bahk, M.D.¹, and Je Ryung Yoo, M.D.²

Department of Nuclear Medicine, Seoul Sungae Hospital¹ and Catholic University Medical School Hospital², Seoul, Korea

Schwannoma is not a rare tumor occurring anywhere where sheathed nerve fibers present. However the spinal involvement has been noted to be uncommon.¹⁾ The use of PET in the diagnosis of spinal schwannomas seemed to have only sporadically been reported²⁾ and standardized uptake values (SUV) measured in peripheral nerves schwannomas varied according to cellularity.^{3,4)} Most reported spinal schwannomas were symptomatic and relatively hypometabolic but ours differed in that despite considerable compression of the spinal cord it did not produce clinical symptoms or signs and had a relatively high FDG uptake value.

The patient was a 56-year-old female who underwent torso ¹⁸F-deoxyfluoroglucose (FDG) PET/CT for the purpose of a general health check. Quite unexpectedly, PET/CT disclosed a spotty area of increased FDG metabolism at the T4 vertebral level. SUVs were calculated as 5.1max on 1-h scan and 4.3max on 2-h scan. Subsequent magnetic resonance imaging (MRI) demonstrated a 1.2×2.1×1.7 cm tumor in the intradural and extraspinal space of the upper thoracic spine. The tumor occupied the right posterolateral aspect of the spinal canal displacing the cord to the opposite side. The tumor matrix was isosignal with that of the spinal cord on T1 weighted image [TR=511 and TE=25], bright on T2 weighted image

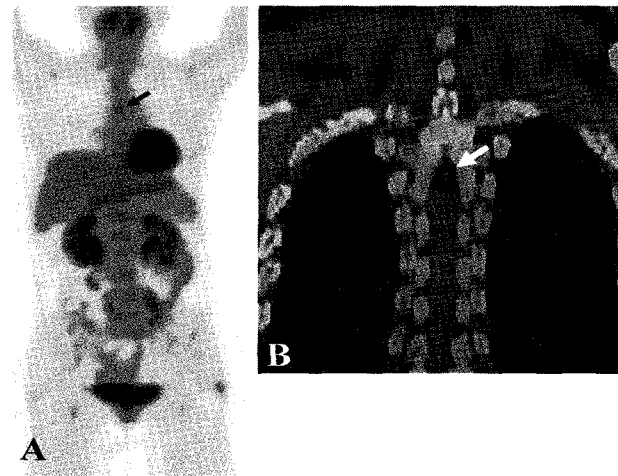


Figure 1. PET/CT scan. A. Maximum intensity projection of torso shows an ovoid tumor with increased FDG uptake at the 4th thoracic spine level (arrow). B. Magnified coronal scan of the tumor-bearing region shows a small intradural tumor with increased FDG metabolism (SUV = 5.1max and 4.3 on initial scan and 2-h delayed scan, respectively).

[TR=4615 and TE=125] and became strongly enhanced after contrast medium injection. The tumor had a capsule, the signal of which was lower than the matrix on T2-weighted image.

Clinically, patient was completely free of symptoms and signs. Physical examination including neurological and electrophysiological tests were negative. Laboratory studies were also within normal limits except for a high serum gamma-GPT level (230 IU/L in 2008, 202 IU/L in 2007). This high gamma-GPT level was attributed to a herb medicine prescribed for her obesity.

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• Address for reprints: Yong-Whee Bahk, M.D., Department of Nuclear Medicine, SungAe Hospital, 451 Shingil-1-dong, Youngdeungpo-gu, Seoul 150-960, Korea
Tel: 82-2-840-7198 Fax: 82-2-2277-8598
E-mail: ywbahk@hanmail.net

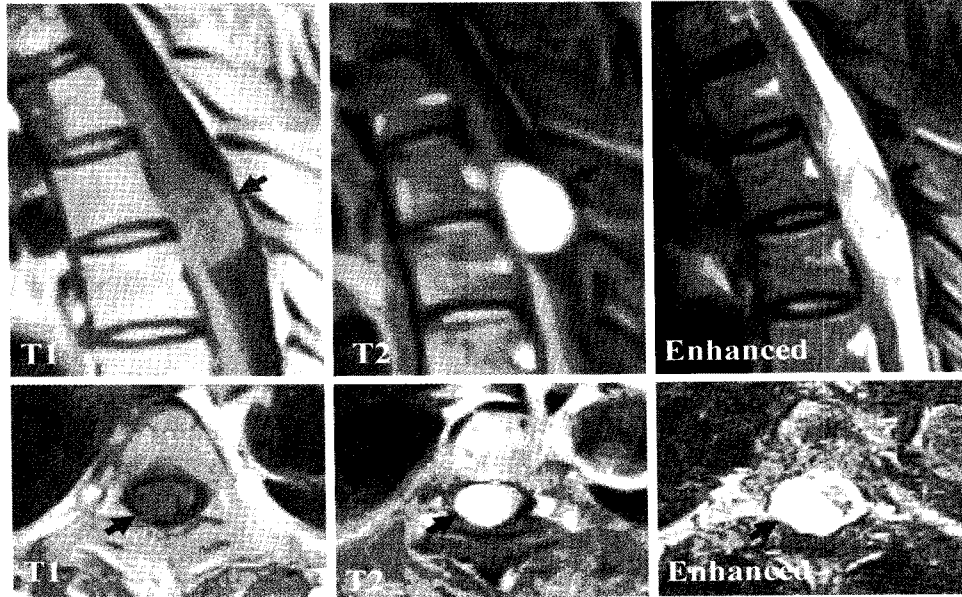


Figure 2. Upper panel. Sagittal T1, T2 and contrast enhanced T1 weighted images show a vertically elongated well-defined ovoid tumor (arrows). Lower panel. Transverse T1, T2 and contrast enhanced T1 weighted images show a tumor occupying a large intradural space displacing spinal cord to opposite side (arrows).



Figure 3. A. Microphotograph shows typical Antoni A and B areas (HE stain; $\times 40$). B. Microphotograph shows degenerative features (HE stain; $\times 40$).

The spine was operated. On opening a 1.0 \times 1.5 cm tumor was found to be encapsulated and located in the right posterolateral aspect of the intradural space at the 4th thoracic spine level. It was completely resected along with the rootlet from which the tumor seemed to have originated not damaging the cord or causing bleeding. The spinal medulla compressed by and adherent to the tumor was decompressed and released

following arachnoid adhesiolysis. The hospital stay was uneventful. Patient was discharged and is well and fine without complication eight months after surgery.

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