## **Images in Clinical Tropical Medicine** Spinal Epidural Hematoma and Gnathostomiasis

Verajit Chotmongkol, Amnat Kitkhuandee, and Kittisak Sawanyawisuth\*

Department of Medicine and Surgery, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand; Research Center in Back, Neck, Other Joint Pain and Human Performance (BNOJPH), Khon Kaen University, Khon Kaen, Thailand

Typically, spinal gnathostomiasis is presented as radiculomyelitis.<sup>1</sup> Here, we report a spinal epidural hematoma caused by *Gnathostoma spinigerum*. A 28-year-old man presented with acute chest pain for 1 hour. The pain was very severe, with dull aching on his left chest and toward his back. At the hospital, he developed paraplegia and sensory loss up to the T4 level. Physical examination revealed loss of proprioceptive sensation in both feet with loose rectal sphincter tone. Laboratory tests showed no peripheral eosinophilia, normal echocardiogram, and normal computed tomography (CT) angiogram of the aorta. Magnetic resonance imaging (MRI) of thoracic spine showed an isointensity lesion on the T1 weighted image (Figure 1) and mixed hyper- and hypointensity on the T2 weighted image at the left posterior



FIGURE 1. MRI of thoracic spine showed an isointensity lesion on the T1 weighted image at the posterior aspect of the thoracic thecal sac.



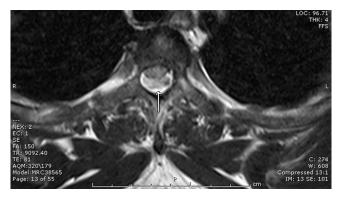


FIGURE 2. MRI of thoracic spine showed a mixed hyper- and hypo-intensity lesion on the T2 weighted image at the left posterior aspect of the thoracic thecal sac. The lesion compressed the thoracic spinal cord.

aspect of the thoracic thecal sac (Figure 2). The lesion compressed to the thoracic spinal cord. The operative finding was epidural hematoma at the T4–T6 level. Blood serological study for gnathostomiasis using the immunoblotting technique was positive for the 24-kDa antigenic band.<sup>2</sup> This diagnostic band has a sensitivity of 91.7% and a specificity of 100% compared with healthy control subjects.<sup>2</sup> The patient received supportive treatment, and the weakness was gradually returned to normal within a few months.

Received September 15, 2014. Accepted for publication October 22, 2014.

Authors' addresses: Verajit Chotmongkol and Amnat Kitkhuandee, Department of Medicine and Surgery, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand, E-mails: vercho@kku.ac.th and amnat711@yahoo.com. Kittisak Sawanyawisuth, Department of Medicine and Surgery, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand, and Research Center in Back, Neck, Other Joint Pain and Human Performance (BNOJPH), Khon Kaen University, Khon Kaen, Thailand, E-mail: kittisak@kku.ac.th.

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## REFERENCES

- Katchanov J, Sawanyawisuth K, Chotmongkoi V, Nawa Y, 2011. Neurognathostomiasis, a neglected parasitosis of the central nervous system. *Emerg Infect Dis* 17: 1174–1180.
- Intapan PM, Khotsri P, Kanpittaya J, Chotmongkol V, Sawanyawisuth K, Maleewong W, 2010. Immunoblot diagnostic test for neurognathostomiasis. Am J Trop Med Hyg 83: 927–929.