



Clinical Image

Lambda Sign: Sarcoidosis

El signo lambda: sarcoidosis



Yu Matsumoto^{a,*}, Masahiro Yamasaki^a, Naoko Matsumoto^a, Masaya Taniwaki^a, Noboru Hattori^b

^a Department of Respiratory Disease, Hiroshima Red Cross Hospital & Atomic Bomb Survivors Hospital, Naka-ku, Hiroshima, Japan

^b Department of Molecular and Internal Medicine, Institute of Biomedical & Health Sciences, Hiroshima University, Minami-ku, Hiroshima, Japan

A 43-year-old woman was referred to our hospital with bilateral hilar lymphadenopathy on chest radiography. She was examined by enhanced computed tomography scan, and bilateral hilar and mediastinal lymphadenopathy was detected. [18F]-fluorodeoxyglucose (FDG) positron emission tomography (PET) showed a high uptake in the above-mentioned lymphadenopathy, demonstrated by the so-called “lambda (λ) sign” (Fig. 1); therefore, sarcoidosis was suspected. A granuloma in the lymph node specimen and a high CD4/CD8 ratio of BAL were detected on endobronchial ultrasound-guided needle aspiration of the mediastinal lymph node and bronchoalveolar lavage (BAL) fluid examination. Therefore, she was diagnosed with sarcoidosis.

As no sarcoid lesions were detected in other organs, such as heart, eyes, and skin, she was followed-up with no treatment.

The lambda sign means that a bilateral hilar and mediastinal lymphadenopathy with a prominent right paratracheal region on gallium scintigraphy gives the impression of an uptake pattern shaped as a “ λ ”.¹ This sign shows high specificity for sarcoidosis.¹ In a recent report, the lambda sign was also observed on an [18F]-FDG PET.² It has remarkable sensitivity in detection of occult disease sites, hence providing biopsy guidance.³ A typical lambda sign supports the diagnosis of sarcoidosis and reinforces the indication to perform appropriate examinations.

* Corresponding author.
E-mail address: yumatsumoto0809@gmail.com (Y. Matsumoto).



Fig. 1. (A) Chest radiograph showing bilateral hilar lymphadenopathy. (B) Chest computed tomography scan showing the bilateral hilar and mediastinal lymphadenopathy. (C) [18F]-fluorodeoxyglucose positron emission tomography scan showing the so-called "lambda (λ) sign", indicating a high uptake in the bilateral hilar and mediastinal lymphadenopathy with a prominent right paratracheal region.

References

1. Sulavik SB, Spencer RP, Weed DA, Shapiro HR, Shiue ST, Castriotta RJ. Recognition of distinctive patterns of gallium-67 distribution in sarcoidosis. *J Nucl Med.* 1990;31:1909–14.
2. Öksüz MÖ, Werner MK, Aschoff P, Pfannenber C. ^{18}F -FDG PET/CT for the diagnosis of sarcoidosis in a patient with bilateral inflammatory involvement of the parotid and lacrimal glands (panda sign) and bilateral hilar and mediastinal lymphadenopathy (lambda sign). *Eur J Nucl Med Imaging.* 2011;38:603.
3. Israel-Biet D, Valeyre D. Diagnosis of pulmonary sarcoidosis. *Curr Opin Pulm Med.* 2013;19:510–5.