MRI and PET imaging discordance in neurosarcoidosis

Figure Thoracic spinal cord imaging

PET reveals moderate FDG activity at T9 to T12 in longitudinal (A) and axial images (C). Normal MRI of thoracolumbar spinal cord in T1 gadolinium contrast images in longitudinal (B) and T10 axial images (D).

A healthy 43-year-old woman presented with bandlike abdominal pressure and urinary frequency. Neurologic examination was normal. Chest CT showed mediastinal adenopathy with correlated FDG-PET hypermetabolism; biopsy demonstrated noncaseating granuloma consistent with sarcoidosis. Spinal involvement was suspected because of FDG-PET activity at T9–T12 (figure, A and C), and confirmed with CSF lymphocytic pleocytosis (26 cells/ μ L). Gadolinium-enhanced MRI of the thoracolumbar spinal cord was normal (figure, B and D; T2 not shown); brain MRI was not obtained. The preferred imaging modality for neurosarcoidosis is gadolinium-enhanced MRI.¹ The FDG-PET signal without MRI correlate in this case suggests that FDG-PET may provide a more sensitive early test for neurosarcoidosis.²

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