International Journal of Infectious Diseases 14 (2010) e453–e454

Contents lists available at ScienceDirect

International Journal of Infectious Diseases

journal homepage: www.elsevier.com/locate/ijid

Medical Imagery

Large paravertebral abscess in a child

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ARTICLE INFO

Article history:
Received 3 March 2009
Accepted 2 June 2009

Corresponding Editor: William Cameron, Ottawa, Canada

A 2-year-old male infant with a recent history of imbalance and ambulatory deficits came to our attention after entering the primary care unit. The child presented with a marked loss of appetite and progressive weight loss during the last two weeks. Clinical examination showed dorsal gibbus and signs of upper motor neuron lesion on lower limb examination. Conventional laboratory exams showed a mild leukocytosis and elevation of erythrocyte sedimentation rate and C-reactive protein levels. An ultrasound evaluation of the abdomen identified a large solid mass reported on the left suprarenal gland. X-ray examination of the spine was performed and revealed crushing of the 11th and 12th dorsal vertebrae with a secondary kyphosis. Magnetic resonance imaging (MRI) demonstrated a wide left-sided paravertebral collection compatible with abscess and originating from the discal space. This mass, partially involving the two contiguous vertebral bodies, exerted an evident compression on the medulla, and displaced aorta, spleen and left kidney laterally. A chest X-ray was normal but the Mantoux test was clearly positive (20 mm). The case history also revealed a vacation in Thailand three months earlier. A tubercular etiology was suspected. Orthopedic surgeons advised conservative management and weekly follow-up to detect any neurological abnormality. Cultures of gastric washings grew *Mycobacterium tuberculosis* susceptible to first-line agents. An empiric 10-month course of anti-tubercular therapy was started while awaiting culture results (for the first two months isoniazid, rifampin, pyrazinamide, followed by isoniazid and

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doi:10.1016/j.ijid.2009.06.003

rifampin for the next eight months). Abscess and symptoms responded dramatically to the therapy.

Although tuberculosis is not endemic in our country, a tubercular etiology must be considered in the differential diagnosis of spondylodiscitis in relation to immunodeficiency, immigration, and tourism. Spinal involvement in tuberculosis is often insidious and diagnosis remains challenging. Clinical presentation includes back pain, fever, paraparesis, sensory disturbance, and bowel and bladder dysfunction. The diagnosis of tubercular spondylodiscitis is confirmed on characteristic MRI findings. MRI is able to determine the extent and to identify complications of the disease. The two most reliable MRI findings that are suggestive of tuberculous spondylitis are thin and smooth abscess wall enhancement and well-defined paravertebral abnormal signal intensity. The use of gadolinium can improve characterization and earlier detection of lesions. MRI is currently the imaging modality of choice for the early detection of tuberculous spine disease.

Conflict of interest: No conflict of interest to declare.