Visceral Larva Migrans Mimicking Lymphoma*

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We report a case of visceral larva migrans in an adult with fever, night sweats, weight loss, hilar and mediastinal lymphadenopathy, bilateral pleural effusion, and eosinophilia-mimicking lymphoma. Visceral larva migrans was diagnosed subsequently because of negative findings for malignancy and positive serologic test result for Toxocara canis. Progressive improvement was observed with albendazole therapy.

(CHEST 2003; 123:1296–1297)

Key words: albendazole; eosinophilia; hilar and mediastinal lymphadenopathy; visceral larva migrans

Abbreviation: VLM = visceral larva migrans

Visceral larva migrans (VLM) is an infection mainly due to Toxocara canis, a common worldwide ascariid specially of children < 6 years of age.1 A wide spectrum of manifestations has been described from asymptomatic infection to fulminant disease.1 These mainly include fever, hepatomegaly, leukocytosis, eosinophilia, and hypergamma globulinemia. We report a case of VLM with hilar and mediastinal lymphadenopathy in an adult mimicking lymphoma.

CASE REPORT

A 65-year-old French man with no medical history was admitted to the hospital in June 2001 for temperature of 39°C and night sweats evolving for 2 weeks. He denied ingestion of any drug and had traveled to the French West Indies 6 months previously. On hospital admission, the patient appeared fatigued and had lost 5 kg in weight. The physical examination was otherwise unremarkable. The WBC count showed L, with 50% neutrophils, 17% lymphocytes, and 26% eosinophils (absolute count, 2,830/10,800). Erythrocyte sedimentation rate was 86 mm/h. C-reactive protein was 85 mg/L and lactate dehydrogenase level was normal. Serum electrophoresis showed an albumin level of 32.8 g/L (normal > 39 g/L); α2-globulin, 9.8 g/L (normal < 7 g/L); and polyclonal γ-globulinemia, 16.9 g/L (normal < 10 g/L). Search for antinuclear, anti–double-stranded DNA, antineutrophil cytoplasmic antibodies, and rheumatoid factor was negative. Infectious inquiry included blood and urine cultures and search for mycobacteria in sputum; serologic study findings for Chlamydia psittaci and Chlamydia pneumoniae, Coxiella burnetii, Legionella pneumophila, and Mycoplasma pneumoniae were negative. Chest radiography and thoracoabdominal CT scan showed bilateral hilar and mediastinal lymphadenopathy 2 to 5 cm in diameter, and discrete bilateral pleurisy (Fig 1). Fiberoptic bronchoscopy demonstrated a diffuse inflammation with a nonspecific inflammation on lung biopsy; direct search for pathogens and culture findings were negative.

Treatment with ceftriaxone, amikacin, and metronidazole, then amoxicillin/clavulanic acid and ofloxacin was ineffective. Mediastinoscopy with partial lymphadenectomy was performed. Analysis of lymph nodes specimens showed destruction of their architecture with a polymorphic cellular infiltrate consisting of eosinophils, histiocytes, fibroblasts, and plasmocytes, and vascular hyperplasia. Immunophenotyping and analysis of IgH and T-cell receptor gene rearrangements failed to detect any monoclonal T-cell or B-cell population. Bacterial culture results of lymph nodes remained negative. Bone marrow biopsy results were normal. Therefore, the patient was referred to us in July of 2001. A parasitic infection was considered, and treatment with albendazole was administered at 400 mg/d for 10 days. Search for parasites in feces was negative. All helminthiasis serology results were negative, but T canis enzyme-linked immunosorbent assay serology was highly positive (optical density/optical density threshold 0.720; positive > 0.3), with antibodies directed against 24-kd and 35-kd antigens. The patient said that he had been in daily contact with a dog during the previous months. Progressive improvement of the general symptoms was observed. In August 2001, he felt well, had no fever, the eosinophil count was normal, the serology for T canis was stable, and mediastinal lymph nodes and pleurisy had almost disappeared.

DISCUSSION

We report the case of a patient with fever, night sweats, weight loss, hilar and mediastinal lymphadenopathy, and eosinophilia related to VLM. This diagnosis was supported by the positive result of the enzyme-linked immunosorbent assay test for T canis and progressive improvement after treatment with albendazole. Other conditions responsible for eosinophilia, such as drug reactions, allergic diseases, autoimmune disorders, and idiopathic hypereosinophilic syndrome, were easily ruled out. Diagnosis of malignancy—particularly lymphoma—was initially suspected, but extensive investigations failed to demonstrate any neoplasm. Because of negative findings, a parasitic infection was subsequently considered.

Pulmonary symptoms mainly consist of cough and wheezing and are reported in 20 to 85% of cases in children with VLM.1 Bilateral areas of infiltration are observed in 40 to 50% of patients with pulmonary symptoms.1 Diffuse noncavitating nodules are unusual.4 Severe symptoms seem to be very rare in adults. Eosinophilic pneumonia responsible for acute respiratory disease, important pleural effusion sometimes associated with tamponade, and severe asthma have been

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Manuscript received March 21, 2002; revision accepted August 1, 2002.

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Bilateral Pneumothoraces After Unilateral Transthoracic Needle Biopsy of a Lung Nodule*

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The occurrence of pneumothorax after an invasive transthoracic procedure is a well-known complication. Less well-recognized is the occurrence of bilateral pneumothoraces after a unilateral intervention with a potential for life-threatening consequences in patients who have undergone median sternotomies. We present a patient who had undergone a thymoma resection in the remote past and developed bilateral pneumothoraces after undergoing transthoracic needle biopsy of a right lung nodule.

(CHEST 2003; 123:1297-1299)

Key words: bilateral pneumothoraces; lung nodule; unilateral biopsy

Bilateral pneumothoraces1,2 and shifting pneumothorax3 are recognized complications of transthoracic procedures in patients who have undergone heart or heart-lung transplant surgery. The prevalence of pleuro-pleural communication after patients undergo a median sternotomy for other thoracic surgeries is unknown. In our review, we found only three reports2,4,5 of bilateral pneumothoraces following a single intervention in patients who were not prior heart or heart-lung transplant recipients. We present the case of a patient in whom a pleuro-pleural communication was established during resection of a thymoma by median sternotomy, who developed bilateral pneumothoraces after undergoing transthoracic needle biopsy of a right lung nodule.

CASE REPORT

A 55-year-old man with a medical history of bronchial asthma, myasthenia gravis, and thymoma resection by median sternotomy 8 months previously underwent a fine-needle aspiration biopsy of a right lung nodule. The aspiration was performed with a 22-gauge, 5.5-inch Wescott needle under CT guidance with the patient in the supine position. The follow-up chest radiograph was reported as a small right apical pneumothorax (Fig 1). The patient was asymptomatic. Room air oxygen saturation was 95 to 97%. Breath sounds were slightly diminished on the right side. A chest radiograph obtained 3 h later showed no further expansion of the pneumothorax. The patient was discharged from the hospital with instructions to repeat a chest radiograph the next day, which showed bilateral pneumothoraces (Fig 2). An 11F intrapleural catheter was inserted to establish a pleuro-pleural communication. The patient was discharged with bilateral pneumothoraces and pneumomediastinum.

We present the case of a patient in whom a pleuro-pleural communication was established during resection of a thymoma by median sternotomy, who developed bilateral pneumothoraces after undergoing transthoracic needle biopsy of a right lung nodule.

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Manuscript received April 19, 2002; revision accepted July 30, 2002.

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Figure 1. Chest radiograph showing hilar and mediastinal lymphadenopathy and bilateral pleural effusion.