Case reports

Simultaneous metastasis of pulmonary adenocarcinoma and bone tuberculosis

Pedro Carpintero[1], Isidoro Barneto[2] and Josemaría Kindelan[3]

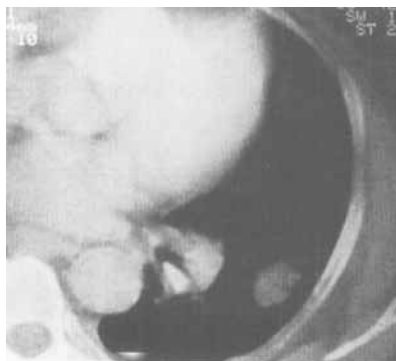
Departments of [1]Orthopedics, [2]Oncology, [3]Infectious Diseases, University of Cordoba, Hospital Universitario "Reina Sofía", Avda, Menendez Pidal S/N, 14.004 Cordoba, Spain. Correspondence: Professor P. Carpintero, C/Mejorana 33, 14012 Córdoba, Spain. Tel +34 957-279299. Fax -218229
Submitted 95-12-07. Accepted 96-04-08

A 61-year-old woman presented with pustular and erythematous lesions on both legs, pain in the right hip and fever since 1 month previously. Hematocrit, platelets, ESR, lactic dehydrogenase, creatine kinase, alkaline phosphatase, calcium, sodium, potassium, phosphate, and triglycerides were normal. ESR was 58 mm and intracutaneous Mantoux induration (2 UT-RT23) was 12 mm. Chest radiography and CT showed three 2 cm nodular masses in the left lower lobe, one was calcified. A transbronchial biopsy showed a pulmonary adenocarcinoma. A skin biopsy revealed granulomatous tuberculoid dermatitis. Conventional radiography and CT showed an osteolytic lesion in the right greater trochanter. At biopsy, a caseous abscess over the greater trochanter and the fascia lata was found. Histological examination showed an adenocarcinoma. Microbiological investigation of parallel samples isolated acid-fast bacilli which were subsequently cultured and identified as mycobacterium tuberculosis. The patient was referred to the Oncology Unit where, despite chemotherapy and anti-tuberculosis treatment, she died from disseminated metastases 9 months after her first visit.

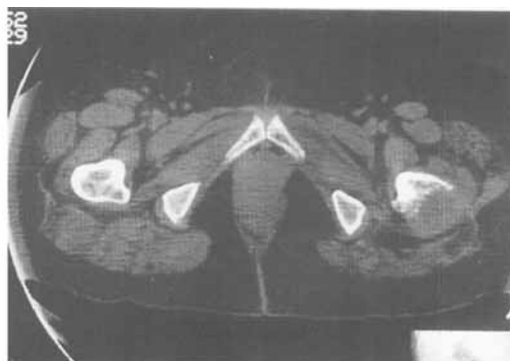
Discussion

Although the association between tuberculosis and lung cancer has been recognized for many years, the literature contains no reports of an association between bone metastasis and tuberculosis (Friedrich 1939, McQuarrie et al. 1968, Kaplan et al. 1974, Ortbals and Marr 1978, Auerbach et al. 1979, Mc Donnel and Long 1981, Bakris et al. 1983, Pitlik et al. 1984, Richardson et al. 1987, Rolstan and Bodey 1993). In some cases, pulmonary carcinoma may develop in a previous tuberculous lesion (scar carcinoma). In other cases, the same factors governing predisposition to tuberculosis may render the patient susceptible to the development of neoplasia: alcoholism, for example, increases the risk of both tuberculosis and cancer of the esophagus (Rosenberg et al. 1989). Finally, certain tumors—particularly hematological tumors—may predispose patients to tuberculosis, through immunosuppression by the tumors themselves or by the treatment given. (Feld et al. 1976) Our patient had no history of tuberculosis, neither smoked nor drank and had not received immunosuppressive treatment.

We propose the following sequence of events: the patient had lung adenocarcinoma, which reactivated a



Calcified mass.



Destruction of the greater trochanter with a soft-tissue mass.

tuberculous lesion in the greater trochanter, and metastasized to the greater trochanter due to increased vascularization.

In countries such as Spain, where the incidence of tuberculosis is still high (Mallolas and Soriano 1988), this clinical possibility should be borne in mind when making a differential diagnosis of any lung lesion. It is imperative that the diagnosis of suspected tuberculosis be demonstrated both bacteriologically and histologically, in view of the possible involvement of other nosological entities, including tumors, which may otherwise escape diagnosis.

References

Auerbach O, Garfinkel L, Parks V R. Scar cancer of the lung. Increase over a 21-year period. Cancer 1979; 43 (6): 636-42.

Bakris G L, Mulopulos G P, Korchik R, Ezdinli F Z, Ro J, Yoon B. Pulmonary scar carcinoma. A clinicopathologic analysis. Cancer 1983; 52 (5): 493-7.

Feld R, Bodey G P, Grosel D. Mycobacteriosis in patients with malignant diseases. Arch Intern Med 1976; 136 (1): 67-70.

Friedrich G. Perifere lungenkrebse auf dem Boden pleuranaher Narben. Virchows Arch Pathol Anat 1939; 304 (3): 230-47.

Kaplan M H, Armstrong, Rosen P. Tuberculosis complicating neoplastic disease. Cancer 1974; 33 (8): 850-8.

Mallolas J, Soriano E. Resurreccion de la tuberculosis. Med Clin 1988; 91 (2): 142-4.

Mc Donnel L, Long J P. Lung scar carcinoma—a reappraisal. J Clin Path 1981; 34 (9): 996-9.

Mc Quarrie J, Donald G, Nicoloff D, Nostrand D V, Rao K, Humphrey E M. Tuberculosis and carcinoma of the lung. Dis Chest 1968; 54 (4): 427-32.

Ortbals D W, Marr J J. A comparative study of tuberculosis and other mycobacterial infections and their associations with malignancy. Am Rev Respir Dis 1978; 45 (1): 39-45.

Pitlik E D, Fainstein V, Bodey G P. Tuberculosis mimicking cancer. A reminder. Am J Med 1984; 76 (9): 822-5.

Richardson S, Hirsch A, Ruffie P, Bickel M. Relationship between tuberculous scar and carcinomas of the lung. Europ J Radiol 1987; 7 (3): 163-4.

Rolstan K V, Bodey G P. Infections in patients with cancer. In: Cancer Medicine (Ed. Holland JF). Lea & Febiger. Philadelphia 1993: 2416-41.

Rosenberg J C, Allen S, Lichter R, Lawrence P. Cancer of the esophagus. In: Cancer: Principles and practice of oncology (Ed. Leichman P). Churchill Livingstone, New York 1989: 725-64.

Methadone-induced fibrous and calcified myopathy—a report of 2 cases

Pedro Carpintero[1], Josemaría Kindelan[2], Mercedes Lluch[3] and Manuel Mesa[1]

Departments of [1]Orthopedics, [2]Infectious Diseases, [3]Surgery, School of Medicine, University of Cordoba, Hospital Universitario "Reina Sofía", Avda, Menendez Pidal S/N, 14.004, Cordoba, Spain. Correspondence: Professor P. Carpintero, C/Mejorana 33, 14012, Córdoba Spain. Tel +34 957-279299. Fax -218229

Submitted 95-11-04. Accepted 96-03-25

Case 1

A 62-year-old woman was admitted to a psychiatric unit suffering from methadone addiction and severe depression. She had injected 1 ampoule (10 mg) of methadone into the gluteal muscles, 3 times a day for at least the last 20 years. The patient was referred to us from the psychiatric unit with acute sciatic pain in the left leg. Clinical examination revealed substantial subcutaneous fibrosis and a woody induration in both skin and buttocks. Mobility of both hip joints was significantly reduced, especially flexion and adduction, so that sitting was virtually impossible. The patient complained of pain and loss of strength throughout the areas supplied by the sciatic nerve, with considerably reduced superficial and deep sensitivity along the anterior aspect of the thigh, and from the knee downwards (areas L4, L5, S1). Needle electromyography of the right lower limb revealed increased duration of the mean motor unit potentials and increased polyphasic potentials in the gluteus maximus, tibialis anterior and gemellus muscles. Laboratory studies (lactic dehydrogenase, creatine kinase, alkaline phosphatase, calcium, urea, proteinogram, creatinine, cholinesterase, triglycerides, sodium, potassium, hematocrit, platelets and ESR) showed normal values. Cholesterol, glucose and alanine aminotransferase levels were slightly increased. Radiography revealed calcification of both gluteal muscles (Figure). CT of the lumbar spine was normal. The sciatic nerve was surgically released by excision of surrounding fibrous tissue and calcified deposits. Histopathological analysis revealed a decreased muscle fiber density, together