A 20-year-old man was admitted because of fever, dyspnea, asthenia, and anorexia of two weeks' duration. He had been exposed to the manufacture of plastics at work until one year ago. Physical examination revealed axial temperature of 38.4°C, blood pressure of 115/70 mm Hg, respiratory rate of 35/min, and bilateral basal crepitant rales upon chest examination. The only remarkable laboratory finding was the presence of microhematuria in the urine sediment with normal renal function. Arterial blood gas values included a pH of 7.42, Po2 of 60 mm Hg and Pco2 of 32 mm Hg while breathing room air. The chest roentgenogram (Fig 1 and 2) showed a miliary pattern.

The patient was admitted with the suspected diagnosis of miliary tuberculosis. Due to his poor general condition, after obtaining samples for microscopic analysis and sputum culture, tuberculostatic treatment was initiated. Macrophematuria developed three days after the initiation of treatment and within 72 hours evolved to oliguric renal failure. Result of sputum analysis for tubercle bacilli, as well as the 5 TU PPD was negative. No granuloma was seen upon liver biopsy.

*From the Seccio de Pneumologia i servei de Nefrologia,† Hospital General Vall d’Hebron, Barcelona, Spain.
Diagnosis: Goodpasture’s syndrome

Hemodialysis was initiated when rapidly progressive renal failure presented. At that time, percutaneous renal biopsy demonstrated the presence of extracapillary glomerulonephritis. Immunofluorescence studies revealed linear deposits of IgG. Serum antiglomerular basement-membrane antibody was positive by radioimmunoassay (53 percent, n: 10 percent).

Antituberculosis drugs were withdrawn and treatment with corticosteroids, cyclophosphamide and plasmapheresis begun. Chest x-ray examination, repeated ten days after hospital admission, revealed complete clearing of the miliary pattern.

Diverse etiologies may cause a miliary radiologic pattern. The most frequent cause is hematogenous dissemination of infectious disease. Other common entities that may cause a miliary pattern are histiocytosis X, interstitial fibrosis, metastatic malignancy, some of the inhalation pneumopathies and sarcoidosis.

Goodpasture’s syndrome, initially described by Stanton and Tange, is characterized by pulmonary hemorrhage and glomerulonephritis, both caused by antibodies to alveolar and glomerular basement membrane antigens.

Although the chest x-ray findings may be normal, the most common pattern found is that of confluent pulmonary infiltration, which coincides with pulmonary hemorrhage. Approximately ten to 20 days after an episode of active bleeding, the alveolar hemorrhage is reabsorbed into the interstitial space, resulting in nodular radiographic images. The disease can evolve toward complete resolution, or after repeated bleeding episodes, to a reticular interstitial pattern indistinguishable from that observed in idiopathic pulmonary hemosiderosis. It is exceptional to find a miliary pattern in Goodpasture’s syndrome. Generally, when multiple nodules less than 5 mm in diameter appear, these usually coexist with others of a larger diameter.

REFERENCES