Hepatic granulomata associated with adenocarcinoma

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Summary

A case is described in which extensive investigations failed to reveal the cause of hepatic granulomata, except that at post-mortem an adenocarcinoma of the lung was found; an association between the two is therefore suggested.

KEY WORDS: hepatic granulomata, lung adenocarcinoma.

Introduction

There are many causes of hepatic granulomata (Sherlock, 1981; Wright *et al.*, 1979), but an association with adenocarcinoma of the lung has not been previously reported.

Case report

A 38-year-old woman was admitted in May 1981, for investigation of anorexia and weight loss. Her past history included pregnancy glycosuria in 1968 and mitral valve replacement for rheumatic heart disease in 1976. She was taking digoxin and nicoumalone. For six months she had experienced intermittent pleuritic chest pain and on one occasion had had a small haemoptysis.

On examination she looked ill but was afebrile with no stigmata of infective endocarditis. The pulse was 70/min, atrial fibrillation, blood pressure 120/70 mmHg, central venous pressure normal. Cardiac auscultation was unchanged from previous findings. The lungs were clear and there was moderate hepatosplenomegaly. Full blood count, routine biochemistry, liver function tests, serum thyroxine and immunoglobulins were all normal. The erythrocyte sedimentation rate was 30 mm/hr. A glucose tolerance test confirmed diabetes mellitus, for which she was commenced on tolbutamide. Chest X-ray showed marked cardiomegaly with patchy shadowing in both lower zones, the appearances being unchanged since her operation in 1976. Cultures of blood, sputum and urine produced no growth. Sputum cytology showed

cells suggestive of carcinoma, a Ziehl-Neelsen stain was negative and no acid-fast bacilli were cultured. Bronchoscopy showed a stricture of the left main bronchus, but a biopsy was normal. Abdominal ultrasound and computed tomography suggested hepatic deposits. A ^{99m}Tc phosphate bone scan showed increased uptake in the ribs, sternum and skull. Liver biopsy showed normal architecture and several non-caseating granulomata but no tumour or acid-fast bacilli (Fig. 1). Other investigations, including Kveim test (Colindale K41/1/1), Mantoux 1:10,000 and 1:1,000, anti-mitochondrial antibodies, antinuclear and rheumatoid factors, Paul Bunnell, HBsAg and Wasserman reaction were all negative. Titres to *Coxiella burnetii*, brucella and cytomegalovirus were not elevated. A bone marrow was normal. The patient was allowed home with a presumptive diagnosis of disseminated bronchial neoplasm. She deteriorated over the next four months and was admitted elsewhere in severe respiratory failure. Chest X-ray showed complete opacification of the lungs and she died 12 hours later. Autopsy revealed adenocarcinoma of the lung with secondaries in the liver and adrenals (Fig. 2).

Discussion

The majority of hepatic granulomata are due to sarcoidosis and tuberculosis (50-65%), but other causes include brucellosis, syphilis, cytomegalovirus, infectious mononucleosis, primary biliary cirrhosis, Hodgkin's lymphoma and rarely drug reactions; 20-25% the cause is unknown (Sherlock, 1981; Wright *et al.*, 1979). Carcinoma is not mentioned as a cause of hepatic granulomata in the standard hepatology texts (Sherlock, 1981; Wright *et al.*, 1979), and in a review of 33 patients with hepatic granulomata Irani and Dobbins (1979) found no cases of carcinoma. However, Klatskin (1977) in an analysis of 565 liver biopsies with granulomata found five cases of intra-abdominal carcinoma. Since other known causes were

FIG. 1. Liver biopsy showing granuloma (HE, $\times 350$).

FIG. 2. Lung showing primary adenocarcinoma (HE, $\times 350$).

excluded in our patient, and neither of the drugs she was taking have been reported to cause granulomata, we feel that these were due to the presence of a primary bronchial neoplasm. Hepatic granulomata

are found in about 13% of liver biopsies (Klatskin, 1977) and when extensive investigations fail to reveal a cause, the possibility of carcinoma should be considered.

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