Anthracosis with a Mosaic Attenuation Pattern

Atsushi Saito, Hayato Yabe, Soichirou Watanabe and Masami Yamazoe

Key words: anthracosis, mosaic attenuation pattern

A 74-year-old woman engaged in charcoal processing was admitted with exertional dyspnea. Chest computed tomography (CT) revealed a mosaic attenuation pattern (Picture 1A, inspiration study; Picture 1B, expiration study). Bronchoscopy revealed black discoloration of the bronchial mucosa. A cytological examination of bronchoalveolar lavage revealed histiocytes containing carbon dust (Picture 2A, Papanicolaou staining, ×40). A histological examination of a trans-bronchial lung biopsy specimen revealed anthracotic deposits and fibrosis in the alveolus (Picture 2B, hematoxylin-eosin staining, ×40). She was diagnosed with anthracosis and observed without treatment. A previous study reported a mosaic attenuation pattern in 36% of anthracosis patients (1), but our literature search revealed no
cases of anthracosis with a mosaic attenuation pattern in Japan. Deposited carbonaceous particles induce fibrosis of the bronchial wall or surrounding interstitium, which can cause hypertrophy of the bronchial wall and luminal narrowing (2). We deduced this to be the cause of the mosaic attenuation pattern in the present case.

The authors state that they have no Conflict of Interest (COI).

References
