Asbestos-related pleural plaques

Case
An 85-year-old man with type 2 diabetes mellitus presented to our clinic with the chief complaints of dry cough and dyspnea on exertion for several months. The oxygen saturation under ambient room air was 92%. Upon physical examination, the patient looked ill and appeared with rapid, shallow breathing pattern. Fine, end-inspiratory crackles were auscultated at bilateral basal lungs. Chest radiography (Figure 1a) and computed tomography (CT) (Figure 1b) showed calcified pleural plaques, mostly distributed along basal and lateral aspect of pleura. On reviewing his medical record, he had a pulmonary function test (PFT) 5 years ago, showing moderate restrictive ventilation defects. He worked as a stonemason for more than 30 years. In light of his occupation, physical examination, PFT and imaging study, asbestos-related pleural plaque was diagnosed. Long-term oxygen therapy and pulmonary rehabilitation were provided. Currently, the patient is able to conduct daily activities by himself.

Inhalation of asbestos fibers can lead to the development of several pulmonary diseases. These include benign pleural disease (diffuse pleural thickening, calcified pleural plaques and effusions), parenchymal disease (rounded atelectasis and asbestosis) and even malignancy (mesothelioma and lung cancer). Generally, the latent period between asbestos exposure and the diagnosis of asbestos-related disease is 20–30 years.1

Asbestos-related pleural plaque is usually benign. It takes place in the parietal pleura, mainly over the diaphragm and inner portion of rib cage.2 This specific appearance of irregular pleural plaque has been likened to a ‘holly leaf’ (Figure 1a).3 Moreover, the dense white margin of these pleural plaques is called the rolled edge (Figure 1a). Generally, the combination of bilateral pleural involvement and the presence of postero-lateral pleural plaque or bilateral calcified diaphragmatic plaques

Figure 1. (a) Chest radiograph showed irregular and band-like pleural calcification, distributed predominantly at bilateral lower and lateral aspect of pleura. The irregular pleural plaque has been likened to a ‘holly leaf’ (black arrow), whereas the dense white edge is known as the rolled edge (white arrow). (b) CT of chest showed band-like pleural calcification, distributed along the basal and lateral aspect of pleura.
are highly predictive of asbestos-related pleural plaques.\textsuperscript{3}

To date, there is no treatment that can effectively alter the natural course of asbestos-related lung disease.\textsuperscript{1} Effort should be made to minimize any on-going exposure.\textsuperscript{1}

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\textit{Conflict of interest:} None declared.

\section*{References}
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