Cannon Ball Lucencies from Last Century: Lucite Balls Used to Treat Pulmonary Tuberculosis

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Collapse therapy has declined since the advent of antitubercular chemotherapy, but there are still such elderly patients who remain asymptomatic while carrying residual "plombes". As oncologists, we are at times confronted with chest radiographs showing multiple pulmonary cannon ball opacities suggestive of metastases. Here we report an unusual case of a 87-year-old patient with cannon ball lucencies from last century: Lucite balls used to treat pulmonary tuberculosis.

Case

An 87-year-old patient presented to the Emergency Department with an upper respiratory tract infection. His medical history was significant only for pulmonary tuberculosis, treated in the 1930's by collapse therapy, and he had since been free from tuberculosis. Chest radiograph showed a multitude of Lucite balls, each approximately 2.5cm (1 inch) in diameter, compressing the apicoposterior and anterior segments of the upper lobe (Figure).

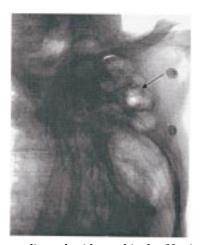


Figure. Chest radiograph with a multitude of Lucite balls, each approximately 2.5cm in daimeter, compressing the apicoposterior and anterior segments of the left upper lobe corresponding to a surgical treatment of pulmonary tuberculosis by collapse therapy. Focus on the Lucite balls.

Collapse therapy consisted of a surgical treatment of pulmonary tuberculosis whereby the lung was totally or partially immobilised, and involved placement of various materials to occupy space and keep the lung collapsed. It represented the standard treatment for pulmonary tuberculosis from 1930 until the advent of isoniazid in 1952.

Collapse therapy was utilised for both diagnosis and therapeutic purposes. Collapse therapy was based on the popular concept that collapsing the affected portion of a tuberculous lung would limit the spread of tuberculous infection to uninvolved parts of both lungs. Moreover, it was also expected that collapsing the lung would allow the infected area to rest and thereby recover. It represented the standard treatment for pulmonary tuberculosis at the time. A variety of techniques were used to encourage collapse therapy of the infected portion of the lung, including pneumolysis, unilateral phrenic nerve division, and thoracoplasty. As reported in the present report, one of the techniques consisted of stripping the parietal pleura from the chest wall and packing the space by insertion of inert Lucite balls between the intercostals muscles and the pleura.

Of course, collapse therapy has quickly declined since the advent of antitubercular chemotherapy, but there are still such elderly patients who remain asymptomatic while carrying residual "plombes".^{2,3}

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