Dendriform pulmonary ossification visualised by scanning acoustic microscope

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A 45-year-old man was referred to our facility because of an abnormal shadow on chest radiography. CT revealed a reticular and nodular shadow (figure 1). Histopathology of a surgical lung biopsy specimen showed dendriform mature bone formation with marrow residing within the alveolar spaces, which was diagnosed as dendriform pulmonary ossification (DPO) (figure 2). DPO is an extremely rare disease.

A scanning acoustic microscope is a device that uses ultrasound to image an object or tissue.1 The data are digitised and color-coded for display. The speed of sound (SOS) of the ossified pulmonary lesions is equal to that of normal bone (figure 3B, red area; mean SOS=3000 m/s)2 and is strikingly distinct from the SOS of normal lung tissue (figure 3A, B, white arrows; figure 3B, blue or green area; mean SOS=1530 m/s). Precise...
measurement of the tissue hardness may hint at the mechanism underlying this rare disease.

Competing interests None.

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REFERENCES