Medical Image of the Week: Benign Solitary Fibrous Tumor

Figure 1. Pleural based Right Lung mass shown on CXR (A), CT scan (B), and MRI (C). MRI confirms lack of significant invasion to surrounding structures.

Figure 2. Bisection of specimen (A) reveals a pale, tan-brown 9.5 x 10.2 x 4.5 cm mass suspended from surrounding normal lung by two pedicles, without gross evidence of invasion of surrounding lung tissue. H & E staining of a representative section of lung mass (B) reveals a dense infiltrate of spindly, fibroblast-like mesenchymal cells with bland nuclear features in the background of a dense collagenous stroma. When labeled with anti-CD34 antibody (C), a marker of fibroblasts and endothelial cells, diffuse cytoplasmic and membranous positivity is seen. Though not shown, staining for Bcl-2 and pankeratin were also performed, and were diffusely positive and negative, respectively. These immunohistochemical findings and a storiform or “pattern-less” pattern is characteristic of typical benign solitary fibrous tumors.

A 68 year old female with a history of resected lung cancer and new onset joint pain and swelling presented for evaluation. Imaging revealed a right intrapleural mass and resection confirmed solitary fibrous tumor (SFT) of the pleura (benign). The patient experienced resolution of her joint pain, which was due to pulmonary hypertrophic osteoarthropathy, shortly after resection. Although not present in our patient, tumor induced hypoglycemia (Doege-Potter syndrome) can also be seen in SFTs. Solitary fibrous tumors are uncommon neoplasms of mesenchymal tissue, and can originate from either visceral or parietal pleural surfaces. Though they can grow to large size

before clinical detection, the majority are benign, and can be treated with *en bloc* surgical resection.

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Reference

Cardillo G, Lococo F, Carleo F, Martelli M. Solitary fibrous tumors of the pleura. Curr Opin Pulm Med. 2012;18(4):339-46. [\[CrossRef\]](#) [\[PubMed\]](#)