FIGURE 293-2 Chest CT imaging and interstitial lung disease. ***A***. Idiopathic pulmonary fibrosis (IPF): Classic findings of IPF (apparent on this image) include a posterior, basilar predominance of subpleural reticular markings and more advanced features of pulmonary fibrosis including traction bronchiectasis and honeycombing. This constellation of findings is often referred to as a usual interstitial pneumonia (UIP) pattern. ***B***. Nonspecific interstitial pneumonia (NSIP): Chest CT findings of NSIP can overlap with those of a UIP pattern but tend to include a bilateral, symmetric pattern that presents with a greater percentage of ground-glass opacities than is apparent in a UIP pattern. Additional unique findings include more diffuse imaging abnormalities with a predominance not limited to the lung bases, imaging abnormalities that spare the subpleural regions, and thickening of the bronchovascular bundles (as is apparent in the right mid lung zone on this image). ***C***. Cryptogenic organizing pneumonia: Chest CT findings include patchy, sometimes migratory, subpleural consolidative opacities (as is apparent on this image) often with associated ground-glass opacities. Peribronchiolar or perilobar opacities can be present, and sometimes a rim of subpleural sparing (often referred to as a reversed halo or atoll sign) can be seen, which can help to aid in the diagnosis. ***D***. Sarcoidosis: Sarcoidosis can present with varied imaging abnormalities, but a pattern of mediastinal and hilar lymphadenopathy with a pattern of reticular-nodular opacities involving the bronchovascular bundles (apparent in this image) are common features. Additional findings can include diffuse small nodules in a miliary pattern, larger nodular opacities, extensive ground-glass infiltrates, and mosaic attenuation suggestive of small airways involvement, and, in more advanced cases, signs of pulmonary fibrosis.

Histopathology Diagnostic VATS biopsy findings include subpleural reticulation associated with honeycomb changes and fibroblast foci (subepithelial collections of myofibroblasts and collagen). These fibrotic changes alternate with areas of preserved normal alveolar architecture consistent with temporal and spatial heterogeneity **(Fig. 293-3)**. Collectively, these pathologic findings are referred to as UIP.