Medical Image of the Month: Radiation-induced Organizing Pneumonia

Figure 1. Axial contrast enhanced CT depicting marked skin thickening of the right breast with fibrotic changes in the adjacent costal lung parenchyma.

Figure 2. Axial/Coronal CT images in lung window showing central ground glass attenuation with surrounding consolidation areas in both lung fields involving regions beyond the radiation field.

Radiotherapy post breast conserving surgery has been in vogue for the treatment of early breast cancer. Organizing pneumonia is one of the responses the lung has to acute lung injury. However, an unusual organizing pneumonia is being recognized with peculiarity of involving the lung zones beyond the actual irradiated parenchyma. Clinically patients may be asymptomatic or present with fever, nonproductive cough, dyspnea, malaise, fatigue and weight loss. The “reverse halo” sign describes the central ground glass haze surrounded by consolidation. Subsequent imaging may reveal migratory infiltrates.
The recognition of this entity is important as a differential with a good prognosis. Though the response to steroids is marked, radiation induced organizing pneumonia quickly relapse once the steroid is withdrawn (1,2).

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References