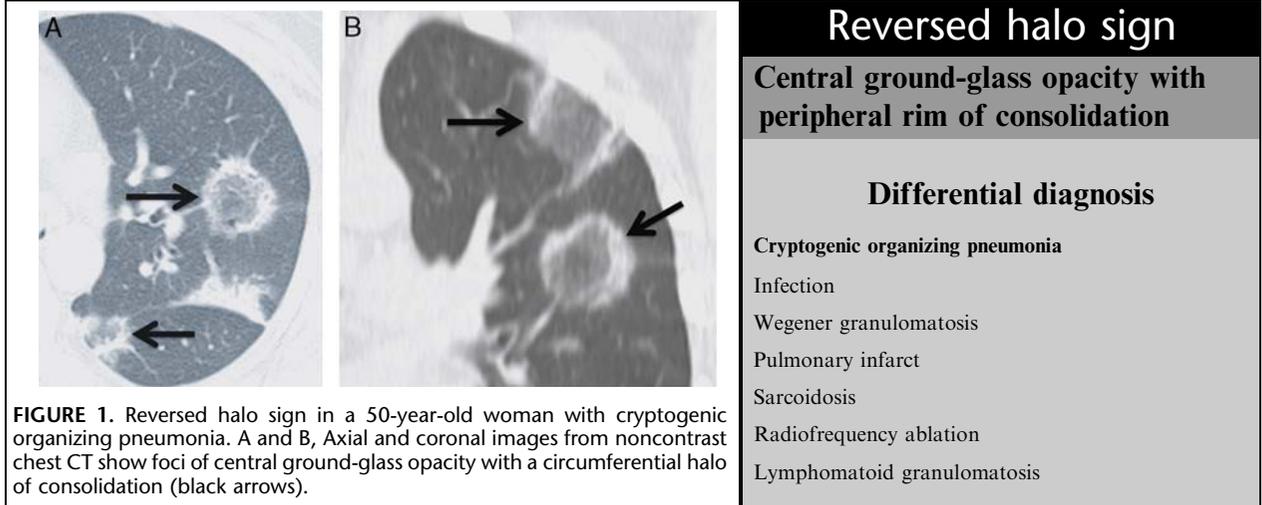


“Reversed Halo Sign”

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Appearance: The reversed halo sign (also known as the atoll sign, reverse halo sign, and the fairy ring sign) is defined by central ground-glass opacity with a surrounding halo or crescent of consolidation (Fig. 1).¹ This should not be confused with the halo sign which refers to central consolidation with a surrounding halo or rim of ground-glass opacity.² Furthermore, the reversed halo sign should be differentiated from cavitation (development of focal regions of internal gas) or pseudocavitation (likely internal bronchiolectasis described in subtypes of lung adenocarcinoma).

Explanation: Pathology of the reversed halo sign in cryptogenic organizing pneumonia (COP) demonstrates alveolar septal inflammation corresponding to central ground-glass opacity and granulomatous tissue in peripheral airspaces (organizing pneumonia) in areas of peripheral consolidation.³ In patients with South American blastomycosis (paracoccidioidomycosis), central ground-glass opacity pathologically represents an inflammatory infiltrate and the rim of consolidation is dense inflammatory intra-alveolar infiltrates.⁴

Discussion: The reversed halo sign was first described and is most commonly associated with COP but is not specific to this disease.¹ It has been reported in the setting of bacterial pneumonia, mucormycosis, paracoccidioidomycosis, tuberculosis, sarcoidosis, radiofrequency ablation, lymphomatoid granulomatosis, Wegener granulomatosis, tumor, and pulmonary infarcts.⁴⁻⁸ The reversed halo sign is seen in approximately 20% of patients with COP and 10% of cases of South American blastomycosis.^{1,4} Actual percentage of the reversed halo sign in the other listed conditions is not known but is likely seen in a small minority of patients. Though initially believed to be pathognomonic for organizing pneumonia, the reversed halo sign can be seen in multiple conditions. Recognition of this imaging finding in correlation with clinical parameters, travel history, and other radiographic findings is imperative to establish an accurate diagnosis.

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