Clinical Image

The atoll sign or inverted halo sign is seen on high-resolution chest CT scans as a central frosted glass area surrounded by peripheral condensation in a ring or crescent, the contours of which may be smooth or spiculated [1]. Histologically, the central zone (ground glass opacity) corresponds to alveolar septal inflammation and cellular debris in the alveolar spaces, while the condensed peripheral zone corresponds to granulomatous tissue in the distal air spaces [2]. Long considered pathognomonic for cryptogenic organizing pneumonia (COP). Currently, the atoll sign is found in other pathologies such as vasculitis (Wegener's disease), sarcoidosis, pneumocystosis, paracoccidioidomycosis, tuberculosis, lipid pneumopathy or after radiofrequency treatment… [3] Recently, this sign was described among the atypical appearances on chest CT scan in patients with covid 19 infection. [4]

Figure 1: Chest CT (3 planes) showing a typical image of an inverted halo “atoll sign” (arrow).
References


4. B Lodé et all. Imaging of covid 19 pneumonia. JIDI 2020