

The reversed halo sign extending the spectrum of atypical radiological manifestations in sarcoidosis

Sir,

We read with great interest the well-written pictorial essay by Al-Jahdali *et al.*^[1] which reviews the wide spectrum of atypical thoracic manifestations of sarcoidosis on imaging methods, emphasizing the importance of understanding the radiological manifestations in making a proper diagnosis.

In order to contribute to this excellent review, we would like to include another atypical tomographic aspect of sarcoidosis, which is the reversed halo sign (RHS). RHS is defined as a focal, round area of ground-glass attenuation surrounded by a partial or complete rim of consolidation. This sign was initially described as a relatively specific of cryptogenic organizing pneumonia. However, subsequent publications identified this sign in a wide spectrum of diseases, including infectious and non-infectious conditions, among them pulmonary sarcoid is included.^[2,3]

Although the RHS must be regarded as a non-specific sign that is encountered in various pulmonary diseases, in cases of sarcoidosis the sign has distinctive morphological characteristics. In patients with sarcoidosis, the ring or the inner area of the reversed halo is nodular in appearance. Furthermore, small nodules within the central ground-glass region of the RHS were seen. Histopathologic analysis of such specimens has revealed the presence of granulomas within the ring portion of the RHS and/or inside the RHS.^[4,5] The same aspect was seen in active granulomatous infectious diseases, particularly tuberculosis.^[5] In conclusion, the RHS with nodular pattern should be included in the spectrum of parenchymal abnormalities that are observed on high resolution computed tomography in patients with sarcoidosis.

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