High-resolution computed tomography in rheumatoid arthritis

Sema Yildiz · Hasan Cece · Ekrem Karakas

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Dear Editor,

We have read with great interest the recent study of Leonel et al. [1] revealing correlation of pulmonary function test with pulmonary high-resolution computed tomography in patients with rheumatoid arthritis. Authors revealed that forced expiratory volume in 1 s (FEV1) was significantly associated with high-resolution computed tomography (HRCT) alterations, and methotrexate use and time evolution of the disease have been associated with altered FEV1. In our opinion, some points about computed tomography (CT) scanning in this article are not sufficiently clear.

In their study, authors did not mention the type of the CT scanner-conventional high-resolution CT or helical high-resolution multi-detector CT (MDCT) and did not give information about the use of typical high special algorithm for HRCT image. They used 2-mm collimation thickness for scanning; however, thin collimation of 1.5 mm or less in HRCT is essential to visualize subtle lung findings as decreased collimation thickness reduces volume averaging artifacts and increases the spatial resolution in the images [2].

Position of the patient at CT scan was not stated in the manuscript though the patient position might be vital in such an imaging procedure since prone position could be

noteworthy for optimal evaluation of ground-glass opacities besides frequent standard supine position. All the images were obtained with deep inspiration of patients in the study; however, images could also be obtained during dynamic expiration or at static end-expiration to evaluate for air trapping in the lung parenchyma.

It is well known that air trapping and mosaic perfusion, esophageal dilation, enlargement of mediastinal lymph nodes, dilation of pulmonary artery, and pleural effusion can also be determined with HRCT in patients with RA, though Leonel et al. did not denote such findings.

We hope that above-mentioned comments will add to the value of the article by Leonel et al.

References

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S. Yildiz (✉) · H. Cece · E. Karakas
Department of Radiology, Harran University School
of Medicine, 63100 Sanliurfa, Turkey
e-mail: drsemayildiz@yahoo.com