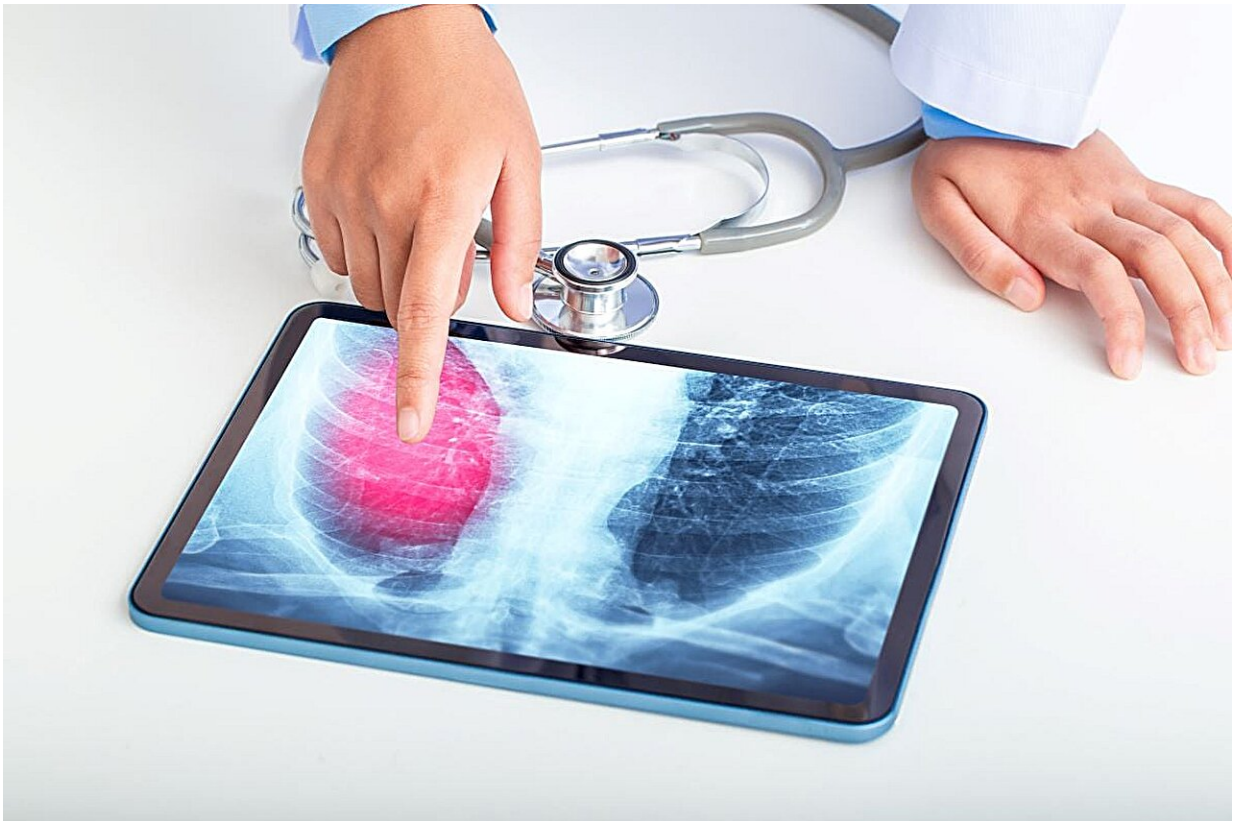


CT-based radiomics nomogram can ID RA-linked interstitial lung disease

September 6 2024, by Elana Gotkine



A computed tomography (CT)-based radiomics nomogram model can achieve favorable efficacy for predicting low-risk patients with rheumatoid arthritis (RA)-associated interstitial lung disease (ILD),

according to a study published online July 31 in *Frontiers in Immunology*.

Nie Han, from Guanghua Hospital Affiliated to the Shanghai University of Traditional Chinese Medicine, and colleagues retrospectively analyzed chest CT images of patients with RA-ILD and staged them using the ILD-gender, age, and pulmonary physiology index system. The dataset with 177 patients was divided into training and testing cohorts in a 7:3 ratio, respectively. A [nomogram](#) model was established based on the Rad-score and clinical factors, combined with the radiomics signature and independent clinical factors.

The nomogram was built using the Krebs von den Lungen-6 (KL-6) and nineteen radiomics features. The researchers found that calibration and discrimination of the model were favorable in the training and testing validation cohorts (areas under the receiver operating characteristic curve, 0.948 and 0.923, respectively). In terms of clinical usefulness, the nomogram performed well in a decision curve analysis.

"A novel nomogram [model](#) combining CT-based radiomics and serum KL-6 was developed in our study," the authors write. "It shows good prediction accuracy in predicting low-risk RA-ILD patients, which implies that this noninvasive and quantitative method may impact the clinical decision-making process, offering a more precise management strategy for patients with RA-ILD."

More information: Nie Han et al, A nomogram model combining computed tomography-based radiomics and Krebs von den Lungen-6 for identifying low-risk rheumatoid arthritis-associated interstitial lung disease, *Frontiers in Immunology* (2024). [DOI: 10.3389/fimmu.2024.1417156](#)

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