

Deep learning-assisted development and validation of an algorithm for predicting the growth of persistent pure ground-glass nodules

THE PREDICTION OF THE PERSISTENT PURE GROUND-GLASS (pGGNs) NODULE GROWTH IS CHALLENGING

Chest computed tomography (CT) image-based deep learning classification model (DLCM) may provide a more accurate growth prediction

This study enrolled consecutive patients with pGGNs from January 2010 to December 2020 from two independent medical institutions.

4 DLCM ALGORITHMS

WERE BUILT TO PREDICT THE GROWTH OF PGGNS, WHICH WERE EXTRACTED FROM THE NODULE AREAS OF CHEST CT IMAGES

Growth of the pGGN occurred in 166 nodules in the study.

The best-performing DLCM algorithm was **DENSENET_DR**, which achieved AUROCs of 0.79 in predicting pGGN growth in the inner validation cohort and 0.70 in the external validation cohort.

DLCM ALGORITHMS THAT USE CHEST CT IMAGES CAN HELP PREDICT THE GROWTH OF PERSISTENT PURE GROUND GLASS NODULES.