Chest computed tomography

Chest computed tomography (CT) has been the preferred imaging modality during the pandemic owing to its sensitivity in detecting COVID-19 infections.

A large number of COVID-19 imaging datasets have been deposited in public databases, leading to rapid advances in COVID-19 research. However, the application of these datasets beyond COVID-19-related research has been little explored. Yurasakpong et al. believed they could be used in anatomical research to elucidate the link between anatomy and disease and to study disease-related alterations to normal anatomy. Therefore, they designed a study to investigate the prevalence of six well-known anatomical variants in the thorax using open-access CT images obtained from over 1000 Iranian COVID-19 patients aged between 6 and 89 years (60.9% male and 39.1% female). In brief, they found that the azygos lobe, tracheal bronchus, and cardiac bronchus were present in 0.8%, 0.2%, and 0% of the patients, respectively. Variations of the sternum, including sternal foramen, episternal ossicles, and sternalis muscle, were observed in 9.6%, 2.9%, and 1.5%, respectively. They believed anatomists could benefit from using open-access datasets as raw materials for research because these datasets are freely accessible and are abundant, though further research is needed to evaluate the uses of other datasets from different body regions and imaging modalities. Radiologists should also be aware of these common anatomical variants when examining lung CTs, especially since the use of this imaging modality has increased during the pandemic [1].

1)
Yurasakpong L, Asuvapongpatana S, Weerachatyanukul W, Meemon K, Jongkamonwiwat N, Kruepunga N, Chaiyamoon A, Sudsang T, Iwanaga J, Tubbs RS, Suwannakhan A. Anatomical variants identified on chest computed tomography of 1000+ COVID-19 patients from an open-access dataset. Clin Anat. 2022 Apr 6. doi: 10.1002/ca.23873. Epub ahead of print. PMID: 35385153.