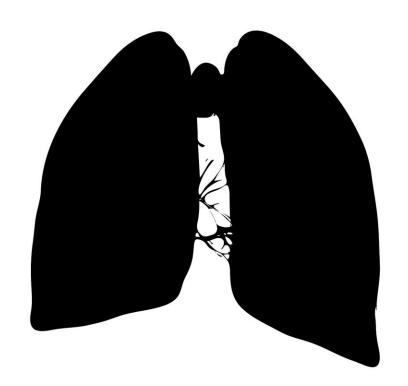


A survey on artificial intelligence in chest imaging of COVID-19

November 11 2020



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In a new article for *BIO Integration* journal, a group of researchers from China consider the application of artificial intelligence imaging analysis methods for COVID-19 clinical diagnosis.

The world is facing a key health threat because of the outbreak of COVID-19. Intelligent medical imaging analysis is urgently needed to make full use of chest <u>images</u> in COVID-19 <u>diagnosis</u> and its management due to the important role of typical imaging findings in this disease. The authors review artificial intelligence (AI) assisted chest imaging analysis methods for COVID-19 which provide accurate, fast, and safe imaging solutions.

In particular, <u>medical images</u> from X-ray and CT scans are used to demonstrate that AI techniques based on deep learning can be applied to COVID-19 diagnosis. In order to improve the performance of AI techniques, it is important to establish a database for public researches and to find a way to extract lesions accurately. Moreover, efficient deep learning models should be explored for COVID-19 applications.

It is important that multisource data can be applied to the diagnosis, monitoring, and prediction of COVID-19 as images from different imaging modalities can only show anatomical or functional information of patients with this disease. For such cases, the multisource data should include imaging findings, clinical symptoms, pathological features, blood tests, etc. In order to build analysis models purposefully and improve them, researchers can study the correlation among these datasets from different sources. This may help to maximize the value of AI in COVID-19 clinical diagnosis.

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More information: Yun Chen et al. A Survey on Artificial Intelligence in Chest Imaging of COVID-19, *BIO Integration* (2020). DOI: 10.15212/bioi-2020-0015

Provided by Compuscript Ltd

Citation: A survey on artificial intelligence in chest imaging of COVID-19 (2020, November 11) retrieved 18 April 2024 from

https://medicalxpress.com/news/2020-11-survey-artificial-intelligence-chest-imaging.html

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