t e D h i y iaa a a ,C or

Journal of Cancer Diagnosis

Mini Review Open Access

# Application of Deep Learning in Diagnosing Lung Cancer through Imaging

**Namratha Bhatiya ***

## Abstract

One of the malignant tumours with the highest mortality rate and closest to our own mortality is lung cancer. It is extremely dangerous to human health and mostly affects smokers. Lung cancer incidence is rising steadily in our nation as a result of the acceleration of industrialisation, environmental pollution, and population ageing. Computed tomography (CT) pictures are a frequently used visualisation tool in the diagnosis of lung cancer. Using X-ray absorption to create a picture, CT scans can see all types of tissues. Pulmonary nodules are the collective term for the diseased lung tissue; each type of nodule has a unique shape, and each type of nodule has a unique risk of developing cancer. Because the computer vision model can swiftly scan every area of the CT image of the same quality for analysis and is unaffected by tiredness or emotion, computer-aided diagnosis (CAD) is a particularly ideal way to address this issue.

Computer vision models may now assist doctors in diagnosing a variety of ailments thanks to recent

***Corresponding author:** Namratha Bhatiya, Division of Gastroenterology, Department of Medicine, University Health Network and University of Toronto, Toronto, Canada,S E-mail: Bhatiya.Namratha@uhn.ca

**Received:** 01-May-2023, Manuscript No: jcd-23-98349, **Editor Assigned:** 04-May-2023, Pre QC No: jcd-23-98349(PQ), **Reviewed:** 18-May-2023, QC No: jcd-23-98349, **Revised:** 23-May-2023, Manuscript No: jcd-23-98349(R), **Published:** 30-May-2023, DOI: 10.4172/2476-2253.1000179

**Citation:** Bhatiya N (2023) Application of Deep Learning in Diagnosing Lung Cancer through Imaging. J Cancer Diagn 7: 179.

Image Collection (LIDC-IDRI) and LUNA16 are two of the most popular open-source lung CT data sets at the moment. e American National Cancer Institute created the lung slice data set known as LIDC-IDRI. Chest medical imaging les and the related diagnosis result annotation les make up the majority of it. is data set's goal is to investigate the early stage of lung nodules as shown by their characteristics [18]. Characteristics of cancer 1018 study examples in all are included in this data set. Four thoracic radiologists with extensive experience interpreting pictures provided a two-stage diagnostic and annotation for the images in each scenario [19]. e labelling information also includes the nodule's properties, such as its sphericity, calci cation, benignity, and malignancy, in addition to its contour. e evaluation of the nodule is aided by these characteristics. e Grand Challenges platform's Lung Nodule Detection competition, LUNA16, also includes an open-source lung CT data set. Based on the LIDC-IDRI lung nodule data set, 888 lung CT scans were created by screening the data set for slice thickness, spatial continuity, completeness, marked nodule size, and the number of marked physicians. It is a dataset with images and annotations for nodules [20].

## Conclusion

e use of deep learning technology on CT images of thyroid and lung cancer was thoroughly examined in this paper. It primarily achieves the detection of thyroid and lung nodules, False Positive