Application of Artificial Intelligence in Detecting Lung Cancer in Asia: Systematic Review

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Introduction

Artificial intelligence (AI) is reported to have a significant role and accuracy in diagnosing and treating cancer. Lung cancer is one of the most deadly cancers, with a five-year survival rate of 16 per cent (Asianscientist, 2017).

A clinical trial shows that using artificial intelligence (AI) can help doctors predict how cancer will develop. On Lung Cancer, AI has the potential to help to treat lung cancer from detection, diagnosis and decision-making to prognosis prediction (Chiu et al., 2022). The aim of the study is to see how IE is used for lung cancer in Asia.

Method

This research uses a systematic review method. We collected articles from 2010-2022 from an electronic database.

The keywords used are artificial intelligence, lung cancer and Asia. Then as many as ten selected articles were reviewed to answer the purpose of this study

Result

In Asian countries, AL for lung cancer has developed.
For Example, in Chinese, the Lung Cancer Artificial Intelligence Detector may play a part in the early detection of lung cancer or large-scale screening of high-risk cancer populations.

The research from Liu et al. (2022) finds that epidemiological characteristics should be considered in lung cancer screening, which can significantly improve the efficiency of the artificial intelligence (AI) model alone.

Furthermore, in Indonesia, Auto ID has developed as an interface between medicine and artificial intelligence and opens the door to a future in which care is delivered more efficiently and precisely (Fahmy, 2021).

Conclusion

AL for lung cancer has developed.

Several countries like China, Indonesia, and Taiwan, have developed lung cancer diagnoses and screening.

References

- Asian Scientist Newsroom. 2018, **Using Big Data To Personalize Cancer Treatment.** https://www.asianscientist.com/2018/04/in-the-lab/big-data-lung-cancer-treatment/
- Chiu HY, Chao HS, Chen YM. Application of Artificial Intelligence in Lung Cancer. Cancers (Basel). 2022 Mar 8;14(6):1370. doi: 10.3390/cancers14061370. PMID: 35326521; PMCID: PMC8946647.
- Fahmi, Sameh. (2021). How we develop Auto ID. siemens-healthineers.com/NMNS
- Liu D, Sun X, Liu A, Li L, Li S, Li J, Liu X, Yang Y, Wu Z, Leng X, Wo Y, Huang Z, Su W, Du W, Yuan T, Jiao W. Predictive value of a novel Asian lung cancer screening nomogram based on artificial intelligence and epidemiological characteristics. Thorac Cancer. 2021 Dec;12(23):3130-3140. doi: 10.1111/1759-7714.14140. Epub 2021 Oct 28. PMID: 34713592; PMCID: PMC8636223.