

20% Increase in Breast Cancer Detection with Al-Supported Mammogram Screening



A new study published in The Lancet Oncology showed that AI is safe to use in breast cancer detection and could assist doctors with finding cancer more effectively.

The new research is believed to be the first-ever randomized control trial comparing Al-assisted breast cancer detection with detection solely performed by experienced humans.

The study involved analysing scans from over 80,000 women in Sweden who had a mammogram done between April 2021 and July 2022. These women were divided into two groups: one group had their mammograms read by Al before it was analysed by a radiologist. The other group's mammograms were read by two radiologists without the use of Al. It's important to note that all the radiologists in the study were considered highly professional.

The group of women whose scans were read by both a radiologist and AI detected 20% more cases of cancer compared to the group whose mammograms were read by two radiologists without AI assistance.

Overall, the screenings supported by AI yielded a cancer detection rate of 6 per 1,000 screened women, while the standard approach without AI had a detection rate of 5 per 1,000.

Additionally, researchers did not observe any indication that the AI used in the study was too sensitive. There was no increased number of false positives, which occurs when a mammogram is diagnosed as abnormal, even though no cancer is actually present.

The group that employed AI experienced an added advantage: a significant 44% reduction in their reading workload. The trial didn't measure the exact time saved by AI, but researchers estimated that if a radiologist typically reads about 50 mammograms per hour, it would have taken a single radiologist four to six months less to complete approximately 40,000 screening exams with the support of AI compared to the time it would take for two radiologists alone.

Dr. Stamatia Destounis, a radiologist specialising in breast imaging at Elizabeth Wende Breast Care in Rochester, New York, summarised, "With mammography, our goal is to detect breast cancer as early as possible, to give each patient the best prognosis, so anything that will make us more accurate is a wonderful thing".

Source: <u>CNN News</u> Image Credit: <u>iStock</u>

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