Impact of real-life use of artificial intelligence as support for human reading in a population-based breast cancer screening program with mammography and tomosynthesis

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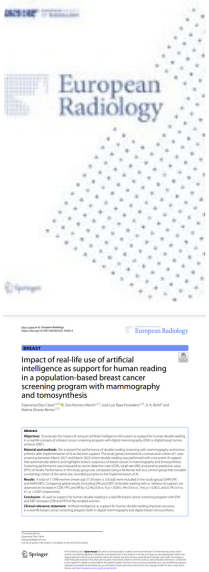
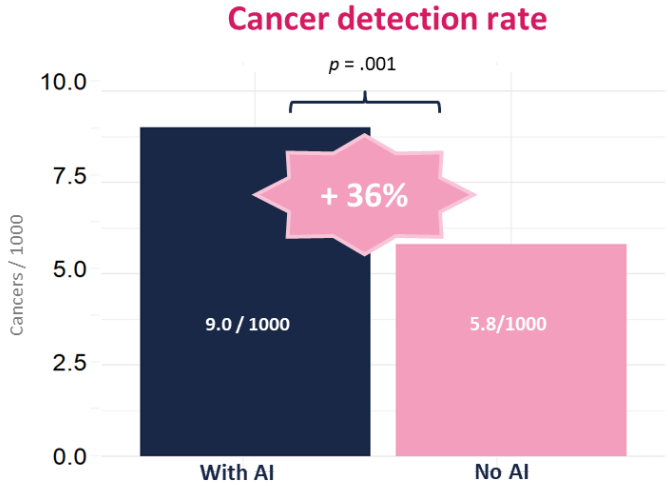
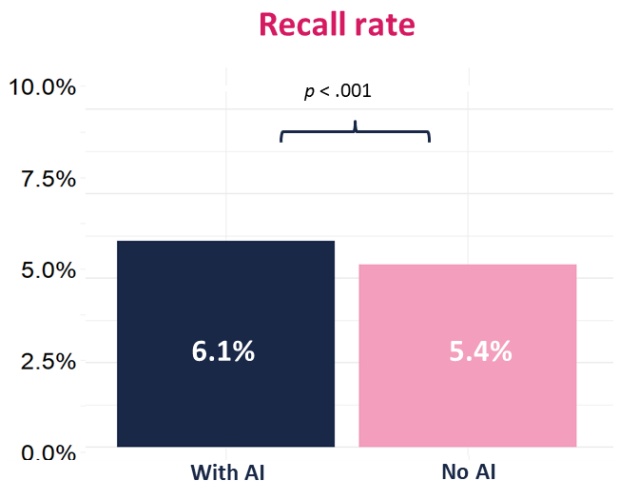


Study design

Analysis of the performance of double reading screening with mammography and tomosynthesis after implementarion of Transpara as decision support. The study group consisted of a consecutive cohort of 1 year screening between March 2021 and March 2022 where double reading was performed with concurrent Transpara support that automatically detects and highlights lesions suspicious of breast cancer in mammography and tomosynthesis. Screening performance was measured as cancer detection rate (CDR), recall rate (RR), and positive predictive value (PPV) of recalls. Performance in the study group was compared using a McNemar test to a control group that included a screening cohort of the same size, recorded just prior to the implementation of Transpara.

Results





Conclusion

Transpara used as support for human double reading in a real-life breast cancer screening program with DM and DBT increases CDR and PPV of the recalled women.

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