Impact of breast cancer screening in a population with high spontaneous coverage with mammography

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OBJECTIVE
The impact of organized screening programs on breast cancer (BC) mortality is unclear in an era of high spontaneous referral of women to mammography. The aim of this study was to analyze if the introduction of mammographic screening programs reduced BC mortality in the Veneto region, Italy, despite already widespread spontaneous access to mammography.
METHODS
In Veneto, screening was introduced in different years between 1999 and 2009 across 21 local health units (LHUs), inviting asymptomatic women aged 50-69 years to undergo mammography biennially. We compared BC mortality for the 1995-2014 period of women aged 40-49 and 50-74 years who were resident in LHUs where screening programs started in 2003 (early LHUs) with women resident in LHUs where screening was introduced later (late LHUs). Poisson regression models were applied to incidence-based mortality (IBM), including only deaths from BC arising within the screening period.
RESULTS
In the prescreening period and until 2010, BC mortality rates in early and late LHUs were similar in both age groups. In the last study period (2010-2014), we observed a 10% decrease in overall BC mortality in early compared to late LHU, limited to women aged 50-74 years. IBM was reduced by 8% (95% CI 1%-16%) in the overall study period and by 16% (6%-25%) in 2010-2014.
CONCLUSIONS
In the Veneto region, screening programs were associated with a significant impact on BC-specific mortality; such effect appeared at least 8 years after screening implementation.
KEYWORDS
Breast cancer; mortality; screening

FULL TEXT PER GLI UTENTI REGISTRATI ALLA RIVISTA
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