

Full Paper

Assessment of breast cancer opportunistic screening by clinical–pathological indicators: a population-based study

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BACKGROUND: Although some clinical–pathological features of breast cancers, such as the incidence of ductal cancer *in situ* (DCIS) and the diameter of invasive tumours, are sensitive indicators of early detection, comprehensive population-based studies of opportunistic screening are needed.

METHODS: Cases of DCIS or invasive breast cancer diagnosed in 1996–2007 were identified from the Ticino Cancer Registry (south of Switzerland). Time trends of age-adjusted incidence and mortality, as well as main clinical–pathological features, such as tumour diameter, AJCC stage and histological grade, were analysed.

RESULTS: A total of 3047 incident cases of female breast cancer were identified. The proportion of DCIS with respect to invasive cases increased from 5.8% in the period 1996–2001 to 6.4% in the period 2002–2007. The median tumour size of invasive cancers decreased from 20 mm in 1996–2001 to 18 mm in 2002–2007 ($P < 0.0001$). An increase in well/moderately differentiated invasive tumours, from 67% in the period 1996–2001 to 73% in 2002–2007 ($P < 0.001$), was detected and resulted in an Annual Percentage Change of incidence of 2.8 (95% confidence interval: 1.3; 4.3).

CONCLUSION: An opportunistic screening strategy can lead to an improvement of prognostic features at diagnosis, but these features are still less favourable than those achieved by organised screening programmes.

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