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The pathological and biological nature of screen-detected breast carcinomas: a morphological and immunohistochemical study.

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Abstract

Traditional and immunohistochemical markers of prognosis were examined in 455 mammary carcinomas derived from breast cancer screening and compared with those of 277 carcinomas presenting symptomatically over the same period. Tumours detected by population screening under the U.K. National Health Service Programme do not differ from those detected by other screening projects, but compared with symptomatic cancers, screen-detected cancers are more likely to be in situ and if invasive, to be smaller, of lower grade, and to have invaded vessels, perineural spaces, and lymph nodes less frequently. Tubular and cribriform types are more often represented in screened patients. Immunohistochemical markers which have been proposed as being related to likely tumour behaviour (epidermal growth factor receptor, c-erbB-2 protein, oestrogen and progesterone receptors, cathepsin D, p53, and retinoblastoma protein) do not distinguish screen-detected from 'clinical' cancers. It is concluded that cancers diagnosed at screening do not differ biologically from those presenting clinically, but are the same lesions detected at an earlier stage of their natural history.