

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

ER? expression seems important in preinvasive cancers

ArticleInfo		
ArticleID	:	3773
ArticleDOI	:	10.1186/bcr-2001-68460
ArticleCitationID	:	68460
ArticleSequenceNumber	:	45
ArticleCategory	:	Paper Report
ArticleFirstPage	:	1
ArticleLastPage	:	3
ArticleHistory	:	RegistrationDate : 2001-8-20 Received : 2001-5-10 Accepted : 2001-8-20 OnlineDate : 2001-9-12
ArticleCopyright	:	Biomed Central Ltd2001
ArticleGrants	:	

George Skliris,^{Affl}

Affl Molecular Medicine Unit, University of Leeds, UK

Keywords

ER? protein, immunohistochemistry, preinvasive mammary tumors

Context

The genes involved in mammary carcinogenesis are not clearly defined, apart from those involved in hereditary breast cancers. Benign breast disease (BBD) and carcinoma *in situ*(CIS) correspond to some early stages of invasive cancer, according to loss-of-heterozygosity data obtained at different loci in these lesions. The discovery of a second estrogen receptor (ER?), whose gene is located on chromosome 14q22-24, has contributed to the understanding of the mechanism(s) causing mammary cancer. ER? has been proposed as both a good and a bad prognostic factor in breast cancer.

Significant findings

ER? expression was higher in normal mammary glands and in nonproliferative BBD, while it decreased significantly in proliferative BBD without atypia and in CIS. Moreover, ER? was present not only in luminal cells but also in myoepithelial cells where ER α was not detected. In addition, ER? was inversely correlated with Ki67, particularly in high grade ductal CIS. A protective effect of ER? against the mitogenic activity of estrogens was suggested when decreased levels of ER? were associated with cell proliferation.

Comments

Unfortunately the antibody used in this study (503 IgY) does not discriminate between different ER? isoforms; hence, no novel information can be drawn regarding the role of specific ER? isoforms in breast carcinogenesis. Future studies and long term clinical follow-up should confirm the observation

that decreased ER α expression might be associated with an increased risk of breast cancer. This could improve individual therapy with antiestrogens.

Methods

Quantitative immunohistochemistry

Additional information

References

1. Roger P, Sahla ME, Makela S, Gustafsson JA, Baldet P, Rochefort H: Decreased expression of estrogen receptor α protein in proliferative preinvasive mammary tumors. *Cancer Res.* 2001, 61: 2537-2541.