Oestrogen receptors in conjunctival malignant melanoma

Paridaens et al claim to have demonstrated oestrogen receptors in paraffin wax sections of formalin fixed conjunctival malignant melanomas.2 It is not unreasonable to expect that these lesions may be susceptible to endocrine factors, but the authors' results do not support their conclusions.

I have two reservations. First, the cytoplasmic staining they observed conflicts with the known absence of oestrogen receptors.2 Second, although the antibody to ER-D5 recognises an epitope on an oestrogen receptor related protein, several studies have shown that immunostaining with this reagent correlates poorly with the results of ligand binding assays for oestrogen receptors.5,6 Furthermore, the authors are mistaken to believe that ER-D5 is "... present only in oestrogen receptor positive tissues".7

Finally, the statement that "... a nuclear binding assay, which identifies non-functional receptors, may be more appropriate" makes no sense. Surely it is more appropriate to identify functional receptors by, for example, seeking oestrogen regulated proteins, such as progesterone receptor and cathepsin D.

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Dr Paridaens and colleagues:

We thank Professor Underwood for his comments on our paper. We disagree, however, with his statement that "the cytoplasmic staining they observed conflicts with the known nuclear localization of oestrogen receptors". An alternative immunocytochemical approach in the detection of the receptor moiety of steroid hormone receptor complexes or unliganded receptors is the use of antibodies directed against receptor proteins. We used a monoclonal antibody which has been shown to be specific to D5 antigen, a non-hormone-binding component related to the cytosolic oestrogen receptor which does not recognize classic type 1 nuclear oestrogen receptor.1 The cytoplasmic staining we observed therefore reflected recognition of the ER-D5 antigen which has been shown to be closely related to oestrogen receptors.1

Secondly, a study by Coffin et al showed a significant correlation (p < 0.001) between D5 immunoradiometric assay (IRMA) value and oestrogen receptors in a series of breast tumours assayed by [3H]oestriol binding sites.2 However, the correlation between ER-D5 immunohistochemistry and ligand-binding assays for oestrogen receptors has been in dispute.5,6 Furthermore, the negative value of the immunocytochemical method using anti-ER-D5 should be interpreted with caution.

Thirdly, the distributors of the antibody (Americanン) indicate that the antigen ER-D5 is present only in oestrogen receptor positive tissues, a finding which was confirmed by King et al.5 Finally, the aim of our concluding statement was to highlight the importance of identifying the hormone receptors that are biologically active (functional as opposed to non-functional receptors) to predict response to hormonal treatment, because this cannot be assessed by immunocytochemistry alone.


Secretarial services to consultant microbiologists

A questionnaire on the use of secretarial services sent to 21 consultant microbiologists in Yorkshire in July 1991 produced a
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doi: 10.1136/jcp.45.3.272-b

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