



## Methodological Variations for p53 Detection by Immunohistochemistry

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The recent paper by Raybaud-Diogenè *et al.* [1] gives an excellent overview of the role of p53 overexpression in relation to head and neck cancer. One further method that should perhaps be considered under the heading "Methodological variations for p53 detection by immunohistochemistry" is that of antigen retrieval. Care should be taken when comparing studies that did not use such techniques [2, 3] with the more recent ones that have [4, 5]. It has recently been shown that antigen retrieval can lead to an increase in p53 positivity, even within benign and normal mucosa [6]. This is probably due to a lowering of the detection threshold for wild type p53 and may reduce the significance of p53 expression in normal mucosa as evidence for field cancerisation in head and neck cancer patients [7, 8]. It also helps explain the discrepancies that have been observed between immunohistochemical detection of p53 and mutation, for example, observed by Li *et al.* [9].

Furthermore, whilst I would not wish to discourage the role of exfoliative cytology, its value in detecting solely p53 is probably limited. Our findings of p53 expression in smears from oral cancer [10] were all taken from clinically obvious lesions. In early lesions, such expression may be limited to the basal region [11]. Exfoliative cytology of intact mucosa would appear rather poor at sampling basal cells [12]. This does not, of course, rule out its potential value in combination with other tumour markers [13].

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