ORAL DISEASES

Oral Diseases (2011) 17, 727–728 doi:10.1111/j.1601-0825.2011.01828.x

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LETTER TO THE EDITOR

Clinical features of micro-invasive stage I oral carcinoma

We read with great interest the article 'Clinical features of microinvasive stage 1 oral carcinoma' by Pentenero *et al* (2011). It was concluded that micro-invasive lesions present clinically as premalignant lesions and accurate clinical examination is essential to avoid misdiagnosis of early lesions. These findings again substantiate the need for biopsy of every premalignant lesion. But there appears to be discrepancy in the incisional versus excisional biopsy of premalignant lesions in the literature (Holmstrup *et al*, 2007; Pentenero *et al*, 2003), and hence, every lesion should be followed up at close intervals (every 3–6 months) independent of the presence or absence of epithelial dysplasia. Although the authors performed comprehensive and extensive research, we would like to discuss certain aspects of the study.

Breslow (1977) first reported 'depth of invasion' as a prognostic factor in melanoma. He defined strict criteria for measuring cutaneous melanoma (from the deepest invading cell to the top of granular cell layer of the overlying epidermis, excluding keratin, parakeratin and inflammatory exudates). Nevertheless, there were two main problems: poor sampling and the variation in apparent thickness owing to changes in the angle of sectioning or to differences in histologic technique. We agree that depth of invasion (DOI) is certainly more accurate than tumour thickness (TT) as proximity to blood vessels and lymphatics determines the risk of developing nodal metastasis; but then again the assessment of DOI is more subjective. The first reference point (subjective identification of the deepest invading tumour cells) is same for both DOI and TT. For TT measurement, second reference point is surface of the tumour, which makes TT more objective and reproducible parameter. But the problem is associated with measurement of DOI as reconstruction of basement membrane is required to create second reference point. This reconstruction is achieved using basement membrane of epithelium associated with the adjacent mucosal margins. In the absence of rete ridges (flat epithelium–connective tissue interface) associated with mucosal margins, reconstruction of basement membrane may not be a problem but still some degree of subjectivity is expected to occur. However, in majority of the cases, rete ridges of variable thickness and depth are present at the mucosal margins. In such situations, subjectivity in the reconstruction of basement membrane increases. Choosing a proper reference point (part of rete ridges/connective tissue papilla) is also a matter of debate in the literature, and hence, the second reference point varies from investigator to investigator. These issues are not present in calculating TT, and hence, it is a more objective and reproducible parameter. Nevertheless, it is also true that DOI is more correct than TT. Hence, attempts should be made to standardize the DOI calculation method to trim down its subjectivity.

The surface point of the epithelium associated with mucosal margins is quite stable reference point for reconstruction and DOI calculation used in the literature by some authors. However, the thickness of oral epithelium is different in different regions of the oral cavity, which can affect the DOI calculation and hence cannot be considered as a uniform factor. The average value of epithelium thickness in different regions of the oral cavity is well established in the literature. If the average thickness of epithelium is subtracted from the DOI (calculated using surface as reference point), then the obtained value will be the distance from the basement membrane. This can increase the uniformity and decrease the subjectivity to some extent. Although these are all theoretical aspects, they need serious practical consideration in future studies.

We respectfully disagree with the authors for using terminology 'non-microinvasive lesions'. Micro-invasive squamous cell carcinoma is very early stage, which will get converted into invasive/frank squamous cell carcinoma. The micro-invasive stage always precedes any squamous cell carcinoma, and hence, it is not scientifically correct to use 'non-microinvasive' terminology for invasive/frank squamous cell carcinoma.

Finally, we would like to appreciate the efforts taken by the authors for bringing out the unique aspects of micro-invasive squamous cell carcinoma. However, understanding the significance of DOI and its implications, future studies with practical considerations and independent validation are required to standardize the DOI measurement.

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References

Breslow A (1977). Problems in the measurement of tumor thickness and level of invasion in cutaneous melanoma. *Hum Pathol* **8:** 1–2.

Holmstrup P, Vedtofte P, Reibel J, Stoltze K (2007). Oral premalignant lesions: is a biopsy reliable? *J Oral Pathol Med* **36:** 262–266.

Pentenero M, Carrozzo M, Pagano M *et al* (2003). Oral mucosal dysplastic lesions and early squamous cell carcinomas: underdiagnosis from incisional biopsy. *Oral Dis* **9:** 68–72.

Pentenero M, Navone R, Motta F *et al* (2011). Clinical features of microinvasive stage I oral carcinoma. *Oral Dis* **17:** 298–303.

Reply to the Author

Dear Editor,

We thank Dr Sarode *et al* for their comments that stress some critical issues in the assessment and interpretation of tumor thickness and depth of invasion, as we previously reported in 2005 in our review of the literature (Pentenero *et al*, 2005). Unfortunately in the last 6 years, no attempts were made to have a more objective and reliable measurement of depth of invasion.

Of course, the transition from microinvasiveness to frank invasion is just a matter of time and any carcinoma had been 'microinvasive' in some part of its natural history; therefore, what we named 'non-microinvasive lesions' could be more precisely defined as 'no more microinvasive lesions' or 'frank invasive lesions'.

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Reference

Pentenero M, Gandolfo S, Carrozzo M (2005). Importance of tumor thickness and depth of invasion in nodal involvement and prognosis of oral squamous cell carcinoma: a review of the literature. *Head Neck* **27:** 1080–1091.