Evaluation of Immunohistochemical Fine Sectioning for Sentinel Lymph Node Biopsy in Oral Squamous Cell Carcinoma

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ABSTRACT

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INTRODUCTION

The current standard of care for staging the clinically node-negative (N0) neck for mucosal head and neck squamous cell carcinoma (HNSCC) involves a lymph node dissection. Recent advances in detection of micrometastatic disease at 2 mm sectioning interval. These results yielded from hematoxylin & eosin as well as immunohistochemical analysis. With this protocol, extensive sectioning analysis to the original pathological management of the lymph nodes. Therefore, it is our aim to identify a smaller number of lymph nodes at risk and evaluating these nodes with more extensive sectioning. Several groups have recommended sectioning at 150 micron intervals. 100% negative predictive value. This will contribute to the efficiency and accuracy in the detection of micrometastatic disease in the sentinel lymph node for a clinically N0 oral squamous cell carcinoma. A limitation of this study is the number of patient specimens that were reprocessed. An additional micrometastatic disease was discovered during the clinicopathologic evaluation of immunohistochemical fine sectioning of sentinel lymph node samples of oral squamous cell carcinoma obtained from patients treated between 1996 and 2000 that were previously sectioned at 2 to 3 mm intervals in Europe. This is not considered standard in North America.

RESULTS

A protocol of 150 micron intervals can thus become quite time consuming and labor intensive. Utilization of the finer 150 micron section interval did not improve the diagnosis of cervical micrometastatic disease.

DISCUSSION

In our study, we reexamine sentinel lymph node tissue samples of oral squamous cell carcinoma obtained from patients treated between 1996 and 2000 that were previously sectioned at 2 to 3 mm intervals in Spain and then subsequently examine all new slides obtained by this protocol. Processing of a 1 cm tissue block at 150 micron intervals requires a greater amount of time and resources, which can become quite time consuming and labor intensive. A protocol of 150 micron intervals can thus become quite time consuming and labor intensive. Further studies are currently being conducted to investigate the role of sentinel lymph node biopsy in the clinical management of these patients.

CONCLUSIONS

We retrospectively reexamined sentinel lymph node tissue samples of oral squamous cell carcinoma obtained from patients treated between 1996 and 2000 that were previously sectioned at 2 to 3 mm intervals in Europe. Sectioning of these SLNs reveals the initially missed micrometastatic disease, the FN rate of SLNB would decrease. The patient with primary oral squamous cell carcinoma who previously underwent sentinel lymph node biopsy (SLNB) with sentinel lymph node dissection interpreted as negative at 150 micron intervals was reexamined by both H & E staining as well as immunohistochemical staining at the 2 mm sectioning interval. These SLNs reveal the initially missed micrometastatic disease, the FN rate of SLNB would decrease. Utilization of the finer 150 micron section interval did not improve the diagnosis of cervical micrometastatic disease.