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Bone scintigraphy in detection of bone invasion by oral carcinoma

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Detecting osseous involvement is clinically important in the management of oral carcinoma. Thirty-one patients with osseous involvement due to oral carcinoma who underwent panoramic radiography and bone scintigraphy were evaluated retrospectively. Bone scintigraphy confirmed osseous involvement in all 31 (100%) of these patients. In 27 (87%) of 31 patients with osseous involvement, both the panoramic radiogram and bone scintigram were positive. In the remaining four patients (13%), bone scintigram was positive for mandibular or maxillary invasion, while panoramic radiogram was negative. There were no instances of an abnormal radiogram with a normal bone scintigram. These findings strongly suggest that bone scintigraphy is more sensitive than panoramic radiography in detecting osseous involvement of the mandible and maxilla due to oral carcinoma. Furthermore, bone scintigraphy was a critical pre-surgical tool in determining the extent of the osseous involvement.

Key words: bone scintigraphy, bone invasion, oral carcinoma