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Case Report
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Intraoral carcinosarcoma on the floor of the mouth mimicking a benign lesion

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Abstract. Carcinosarcoma is a rare malignant disease with aggressive behaviour rarely producing oral manifestations. This article reports a case of an intraoral carcinosarcoma affecting a 71-year-old black male; the diagnosis was made by histopathological and immunohistochemical analyses. Computed tomography scanning showed metastatic masses in the lungs. The patient was underwent a chemotherapy protocol regimen, but died as a consequence of the disease within 10 months of diagnosis. Distinctive characteristics of this presentation were the location of the lesion (floor of the mouth) and its clinical features resembling a benign lesion. A brief review of intraoral carcinosarcoma cases in the literature is also presented.

Key words: carcinosarcoma; true malignant mixed tumour; malignant salivary glands neoplasm; pedunculated lesions.

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Carcinosarcoma, also known as a true malignant mixed tumour, is a rare malignant neoplasm that exhibits a unique histopathologic pattern characterized by a mixture of carcinomatous and sarcomatous tissues.[9,10] Usually, the neoplasm presents with very aggressive behaviour, producing early metastasis and showing a high mortality rate.[9] In the head and neck region, carcinosarcoma mainly affects salivary glands, with the parotid glands being the site most frequently involved.[10]

The occurrence of intraoral carcinosarcoma affecting minor salivary glands is exceedingly rare, with only 15 cases reported in the literature.[1–8,10–15] This report presents a case of an intraoral carcinosarcoma displaying features of a benign lesion. A brief review, comparing the clinical characteristics with other intraoral cases reported in the literature, is also included.

Case report

A 71-year-old black man was referred to the authors' department to clarify a painless mass on the floor of mouth of 50 days' duration. The patient had been smoking and drinking for 40 years and both his legs had been amputated due to deep venous thrombosis. His medical history revealed well-controlled hypertension. Oral examination showed a well-circumscribed, pedunculated, reddish-brown mass, 1.5 cm in diameter, with shallow ulceration on its surface (Fig. 1). On palpation, there were no signs of infiltration to peripheral tissues or evidence of neck lymphadenopathy.

The working diagnosis was pyogenic granuloma, and an excisional biopsy was performed. The postoperative course was uneventful with the surgical wound healing completely in 2 weeks. No recurrence was noticed throughout the entire process of the investigation and treatment.

Microscopical examination of haematoxylin and eosin (H–E) stained sections revealed a malignant neoplasm with biphasic differentiation: epithelial and mesenchymal tissues. Sarcomatous elements were predominant. The malignant epithelial component was represented mainly by squamous cell carcinoma showing scattered islands of epithelial cells with pleomorphic nuclei, eosinophilic cytoplasm and few mitotic figures. The malignant mesenchymal component was

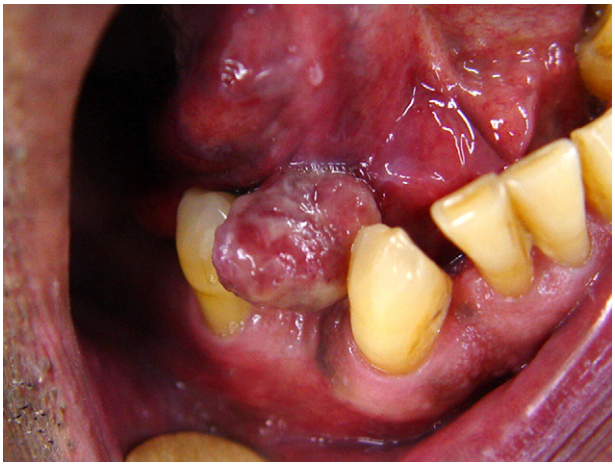

Fig. 1. Clinical aspect of the lesion showing a well-defined nodule, 1.5 cm in diameter, pedunculated, red-brownish in colour, and superficially ulcerated.

characterized by sheets of pleomorphic spindle-shaped cells, with pleomorphic and hyperchromatic nuclei, and numerous mitotic figures (Fig. 2A and B).

The epithelial component on immunohistochemical staining was strongly positive to pan-cytokeratin AE1/AE3 (Fig. 2C and D), whereas the mesenchymal component was vimentin positive (Fig. 2E and F). Human melanoma black-45 (HMB45), cluster differentiation-4 (CD34) and cytokeratin-7 (CK7) were not detected in these two groups of malignant cell populations.

Based on the histopathologic and immunohistochemical analyses the diagnosis was carcinosarcoma. The patient was referred to an oncology centre for further evaluation and treatment. A full-body computed tomography (CT) scan,

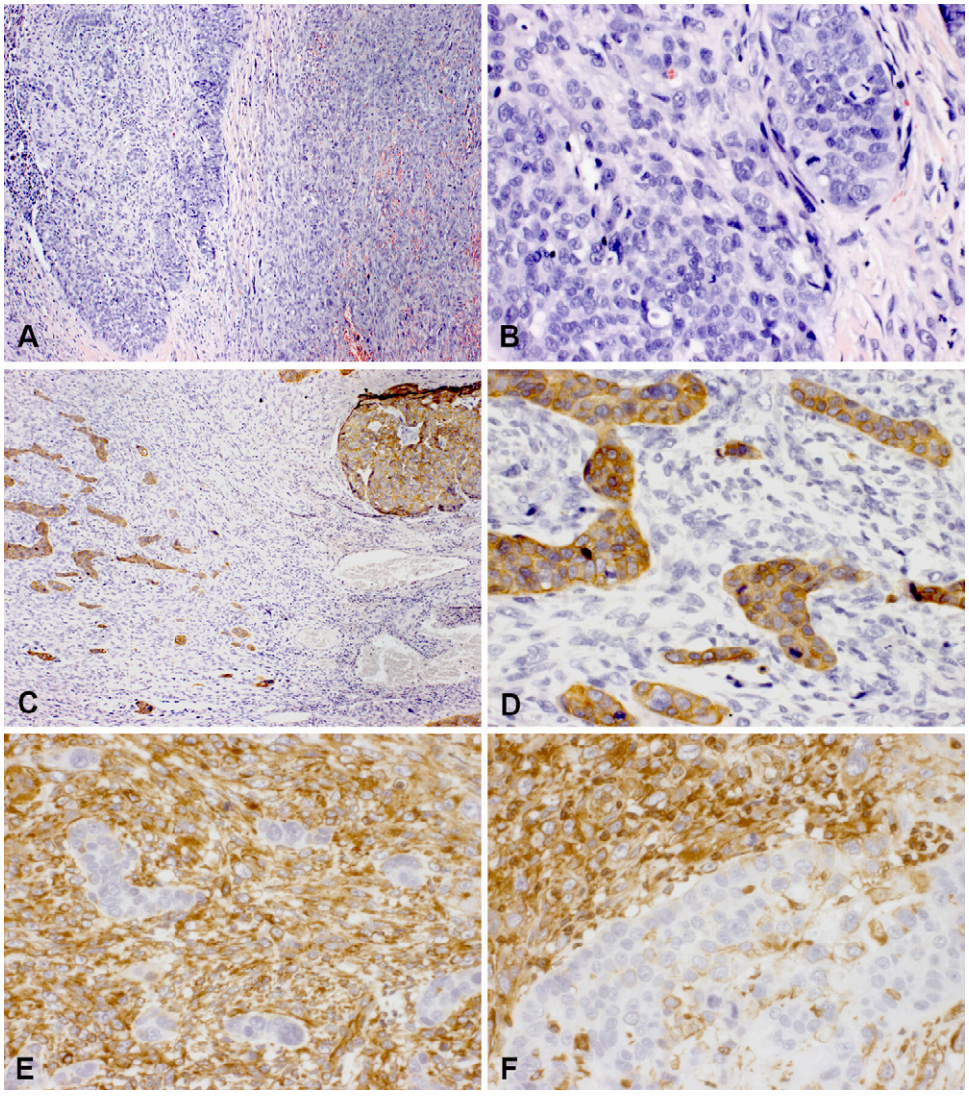

Fig. 2. (A and B) H–E stained sections showing a malignant neoplasm with biphasic differentiation composed of epithelial and mesenchymal cells. Scattered epithelial cell islands and spindle-shaped cells both with pleomorphic nuclei, eosinophilic cytoplasm and mitotic figures (100×). (C and D) Immunohistochemical staining showing epithelial component strongly positive for pan-cytokeratin AE1/AE3 (100×). (E and F) Immunohistochemical staining showing mesenchymal component positive for vimentin (100×).