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Letter to the Editor

Osteosarcoma – a rare clinical presentation and management approach

Sir,

Osteosarcomas arise from primitive mesenchymal cells, primarily originating in bone and rarely in soft tissue. If left untreated, they follow an aggressive course, leading to local and metastatic disease progression. Osteosarcoma is an uncommon type of sarcoma characterized by the histological presence of osteoid production linked to malignant mesenchymal cells. It is the third most prevalent cancer in children and adolescents, following lymphomas and brain tumors. The exact causes remain unclear, but its occurrence in the growing population and its typical location at the ends of long bones suggest a link to rapid bone production.

A 25-year-old female reported to the department of oral medicine and radiology, Subharti Dental College with the chief complaint of pain and swelling in the lower right back tooth region. She had previously consulted a local dentist and taken medication. Twelve days earlier, she noticed a small swelling on the right side of the face that gradually increased in size.

Extraoral examination revealed facial asymmetry. A swelling extended from the lower border of the mandible to the maxillary region. On palpation, the swelling was smooth, non-tender, and bony hard. The overlying skin was freely mobile with no rise in temperature. Lymph nodes were non-palpable.

Intraorally, an extensive swelling was noted from tooth region 44 to 48, extending toward the palate and displacing the tongue inferiorly. The patient was unable to close her mouth due to the growth.

Investigations included OPG, CBCT, MRI, and biopsy. OPG revealed a radiolucent lesion near the right mandibular third molar extending to the ramus. MRI showed a large aggressive soft-tissue mass (82×75×70 mm) invading adjacent structures including the masseter muscle, condyle, parotid gland, and infratemporal fossa. Additional lytic lesions in the frontal skull suggested metastasis. Biopsy revealed areas of inflammatory granulation tissue with foci of malignant cells exhibiting high nucleus-to-cytoplasm ratio and perivascular arrangement, suggestive of a poorly differentiated malignancy.

Final diagnosis was poorly differentiated malignant bone tumor (osteosarcoma) of the mandible with rapid destructive behavior and evidence of spread, necessitating urgent oncologic management.

Figure 1: Clinical pictures (A) and (B) showing extraoral images, (C) and (D) showing intraoral images.

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