Oral Cavity Metastasis: A Single-Center Retrospective Study

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Introduction

Oral cavity metastasis is a rare and challenging clinical entity, often posing diagnostic dilemmas for healthcare professionals[1]. It represents a rare and often late-stage manifestation of systemic malignancies, characterized by the dissemination of malignant cells from a primary tumor site to the oral tissues. The incidence of oral cavity metastases ranges from 1% to 3% of all oral malignancies, highlighting their relative infrequency in the broader spectrum of oral pathologies[2,3].

Though rare, oral metastases hold significant clinical importance, as they frequently signal advanced systemic disease and are associated with poor prognosis and average survival rates around 7 months[4].

The diagnostic challenge posed by these lesions arises from their diverse clinical presentations, which can mimic more common benign or reactive conditions, leading to potential delays in accurate diagnosis and appropriate management[5].

A comprehensive understanding of the clinical characteristics, primary tumor origins, and diagnostic modalities is crucial for clinicians to effectively identify and manage oral cavity metastases, thus improving patient outcomes and quality of life.

Methods

A retrospective study of patients with metastatic solid tumors to the oral cavity between 2010 and 2024 was conducted at the oral medicine unit, Sheba Medical Center.

The demographic and clinical data of all patients, including their diagnostic workup, were collected and analyzed.

Patients with primary oral cavity malignancies, hematologic malignancies, metastasis to the major salivary glands, or insufficient data were excluded.

Results

A total of 31 patients (29 adults and 2 children) with metastatic tumors to the oral cavity were identified: 24 females (77.4%) and 7 males (22.6%) with a mean age of 60.35 years (range, 5 to 81 years). Primary tumors included breast and lung (25.8% each), colon (16.1%), kidney (9.7%), and others (thyroid, uterus, brain, prostate, adrenal, skin—each 3.2%). Signs and symptoms included intraoral pain (43.3%), swelling (36.6%), sensory changes (36.3%), bleeding (10%) and trismus (9.7%). The most common site were the mandible involved in 25 cases (80.6%; 22 posterior, 3 anterior), maxilla in 3 cases (9.7%; 1 palate, 2 posterior), and other oral soft tissue. One of the pediatric patients had 2 sites involved – buccal mucosa and ramus.

In three patients (9.7%), metastasis to the oral cavity represented the initial clinical manifestation of an underlying occult malignancy.

Patients with oral metastasis had poor prognosis, with a median and mean survival of 4.15 months and 8 months, respectively.

Figure 1: A 63 years old female with gingival metastasis of lung cancer

Figure 2: A 77 years old male with gingival metastasis of gastric cancer

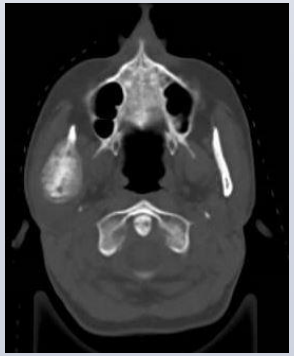

Figure 3: A 45 old female with brest cancer metastasis to the right mandibular ramus

Conclusion

While uncommon, oral metastases represent an important diagnostic consideration for both dental and medical professionals. It is essential to consider the possibility of metastatic disease in patients with a known history of primary malignancy, as well as in those presenting with unusual or rapidly progressive oral lesions. A comprehensive clinical approach to suspected metastatic oral lesions necessitates a thorough clinical history, including past medical conditions, a meticulous extraoral and intraoral examination, and the judicious use of advanced imaging modalities.

References