

# Dental Treatment of Patients with Lymphoma: A Multidisciplinary Approach

Yu-Chen Xie DDS, Pooja Patel DDS, Kathleen Chung DDS, Rebecca Dayanim DDS

**BACKGROUND**

Lymphoma, a malignancy of lymphoid tissue, can manifest in the oral cavity and can often mimic other odontogenic/non-odontogenic pathologies. This can cause challenges in diagnosis, treatment selection, and management for dental and medical practitioners.

- OBJECTIVES**
- Highlight the role of the dentist as the leading practitioner in the multidisciplinary management of a patient with NK-T cell lymphoma, nasal type with significant oral manifestations.
  - Identify the importance of meticulous documentation and follow up of any changes in oral structures, especially those that may be secondary to lymphoma.
  - Demonstrate the presentation of lymphoma and the dental management in 3 patient cases.

- METHODS**
- This study analyzed three patients involving the oral and maxillofacial regions through clinical, radiographic, and histopathological evaluation.
  - Clinical symptoms were monitored through vitality testing of teeth, periodontal assessment, additional radiographic and CBCT imaging, and 3-6 month follow-ups over time to rule out odontogenic sources of infection.
  - Integrated a multidisciplinary approach and collaboration of the entire dental team with otolaryngologists, radiation oncologists, oncologists, and pathologists.

- RESULTS**
- Symptoms such as pain, swelling, tooth loosening, pathological fractures and radiolucencies are rare but documented manifestations of lymphoma involving the oral and maxillofacial regions.
  - These features can closely resemble endodontic or periodontal infections, often leading to erroneous treatment and delayed diagnosis of lymphoma.

Feb 2024

• Patient presents with endodontic symptoms without odontogenic origin

Nov 2024

• Message sent to ENT and radiation oncology from dental team regarding continued UL pain with no apparent odontogenic origin

Dec 2024

• Pathologic fracture apical to #9-13 identified on CBCT  
• Dental consult to head and neck tumor board (HNTB) team

Jan 2025

• Repeat PET with CT: increased osseous erosion and metabolic activity of maxillary sinus wall, palatine and alveolar processes  
• Case re-presented at HNTB favoring infectious process  
• Repeat biopsy with culture


Figure 1: Patient A dental and oncologic treatment progression

- CONCLUSION**
- Lymphoma has variable presentations in the oral cavity, thus it is important to correlate clinical symptoms to vitality testing, periodontal assessment, and detailed documentation.
  - Dental professionals are essential to reduce misdiagnosis, ensure timely referral, and improve patient outcomes.
  - Effective communication with multidisciplinary team members, including otolaryngologists, radiation oncologists, oncologists, oral surgeons, dental maxillofacial prosthodontists, and endodontists are critical for accurate diagnosis and treatment planning.


Radiographic	Treatment Induced	Other findings
<ul style="list-style-type: none"><li>• Radiolucency</li><li>• Sinus opacification</li><li>• Bone resorption</li><li>• Loss of lamina dura</li><li>• PDL widening</li></ul>	<ul style="list-style-type: none"><li>• Mucositis (chemotherapy and radiation)</li><li>• Xerostomia (radiation)</li></ul>	<ul style="list-style-type: none"><li>• Dysphagia</li><li>• Dyspnea</li><li>• Bulging mass with or without ulceration</li><li>• Tooth mobility</li></ul>

Figure 2: Common head and neck findings in lymphoma


Image 1: Patient A




(a) April 2024: 3x3 mm ulcerated sinus tract with exposed bone of periapical area of #11 and 12



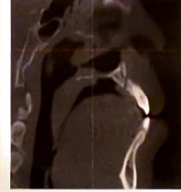
(b) July 2024: sinus tract traced with gutta percha to #12 apex



(c) November 2024: 4x4 mm ulcerated sinus tract with exposed bone associated with periapical area of #11 and 12




(d) November 2024: Progression of oroantral fistula




(e) Reviewed November 2024: Pathological fracture of maxilla apical to #9-13 (taken October 2023)

Image 2: Patient B




April 2024: Exposed necrotic bone of #1 and 2 sockets

Image 3: Patient C



(a) May 2024: Oroantral fistula



(b) July 2024: Fabricated obturator