



# The Destruction of Oral Tissues from Burkitt Lymphoma: A Case Report

Marcella Lucia, DDS | Juan F. Yepes, DDS, MD, MPH, MS, DrPH, FDS RCDS(Ed) | Allison C. Scully, DDS, MS, FAAPD |  
Divesh Sardana, MDS, MBA, MPH, PhD, FHEA, FDS RCPSG, FIAPD  
Indiana University School of Dentistry, Indianapolis, Indiana – Riley Hospital for Children

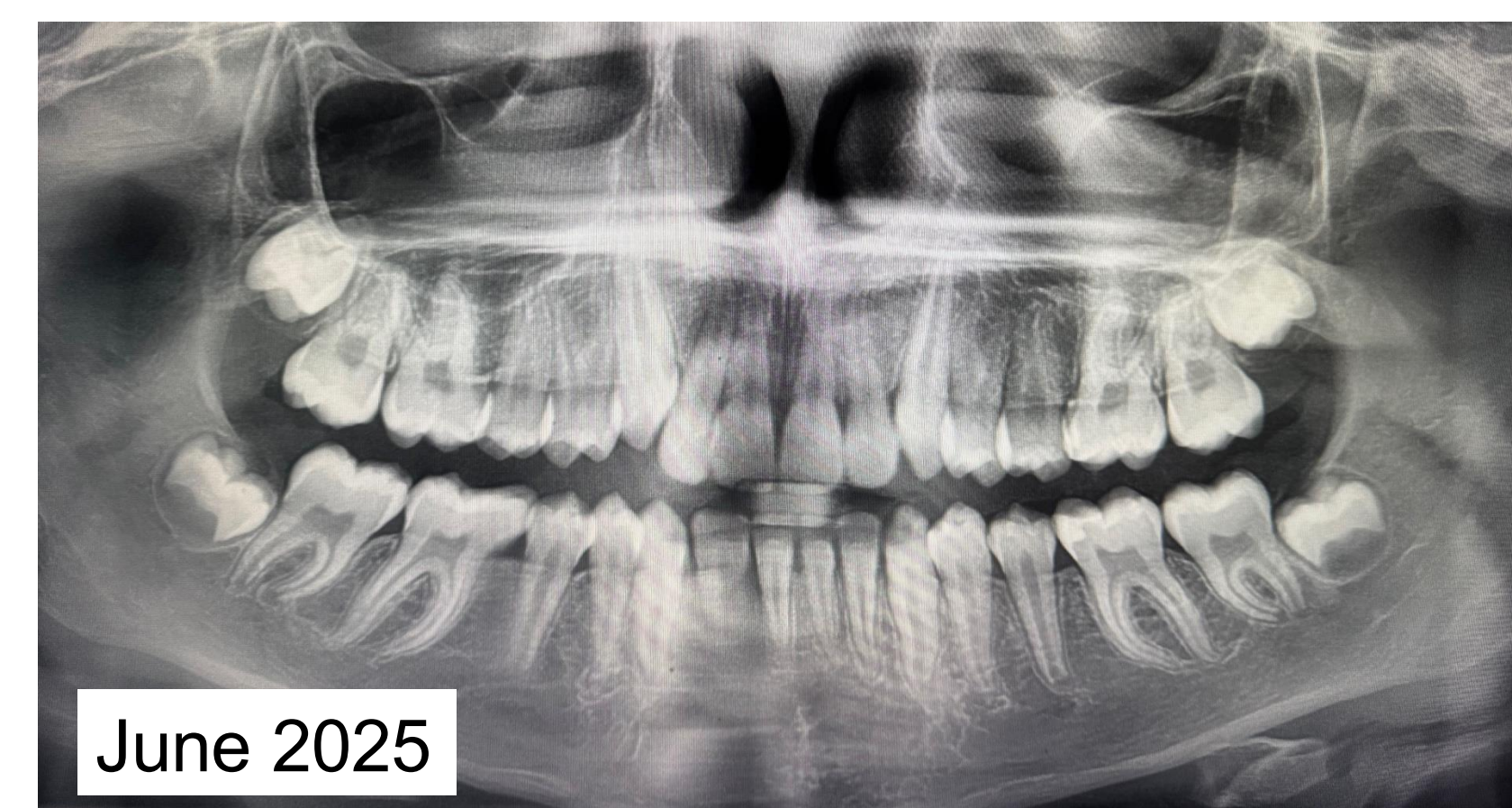
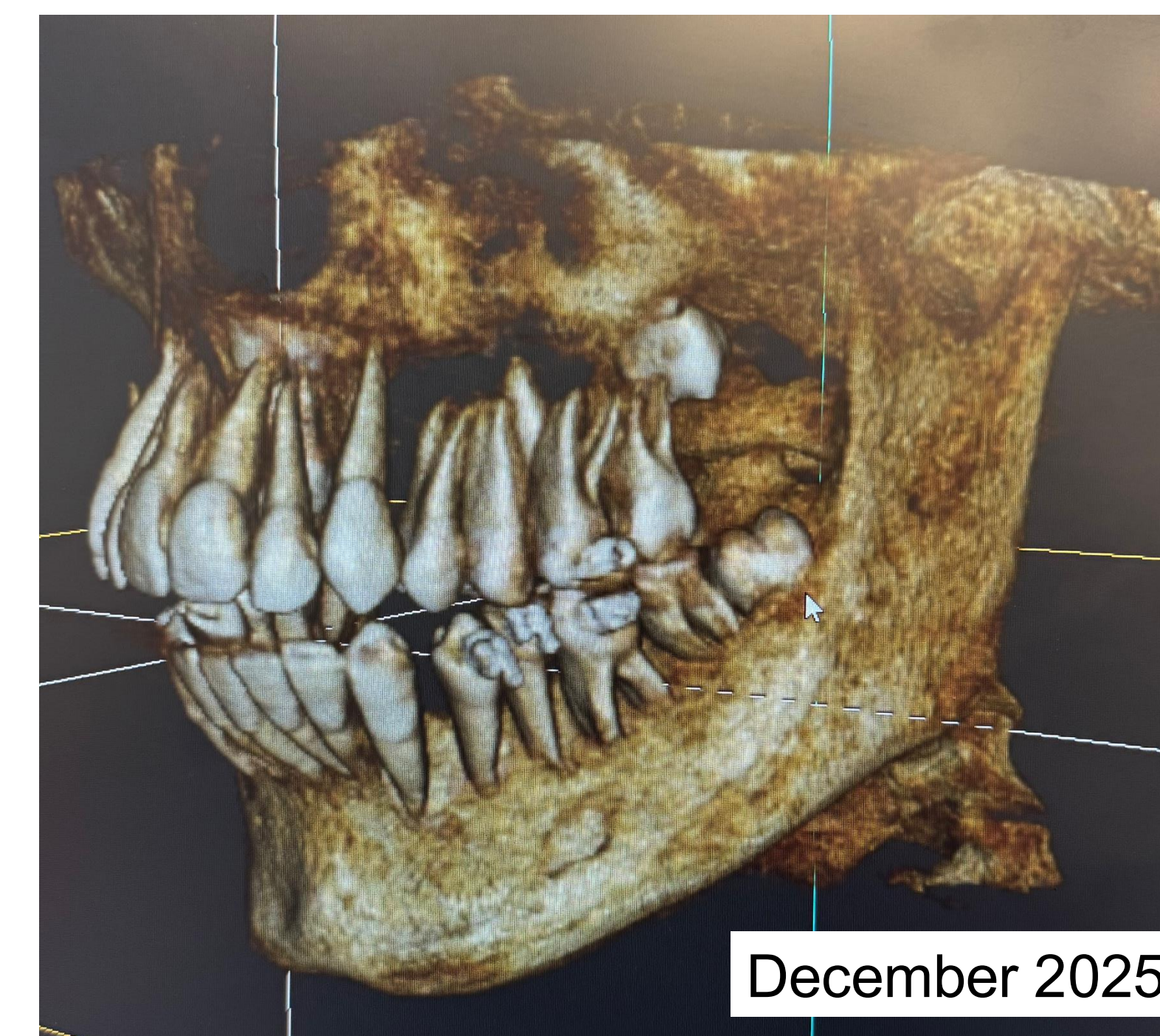
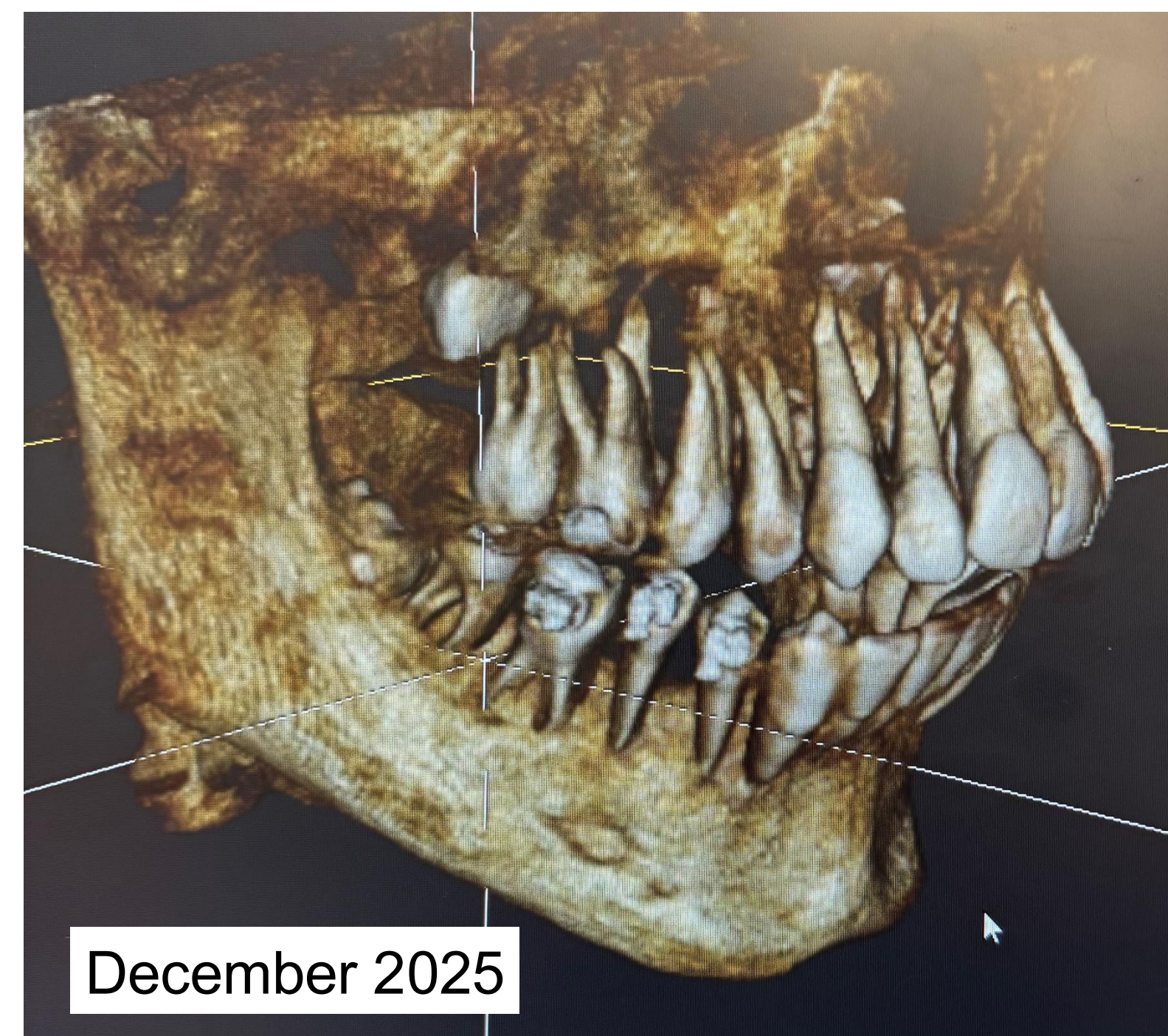
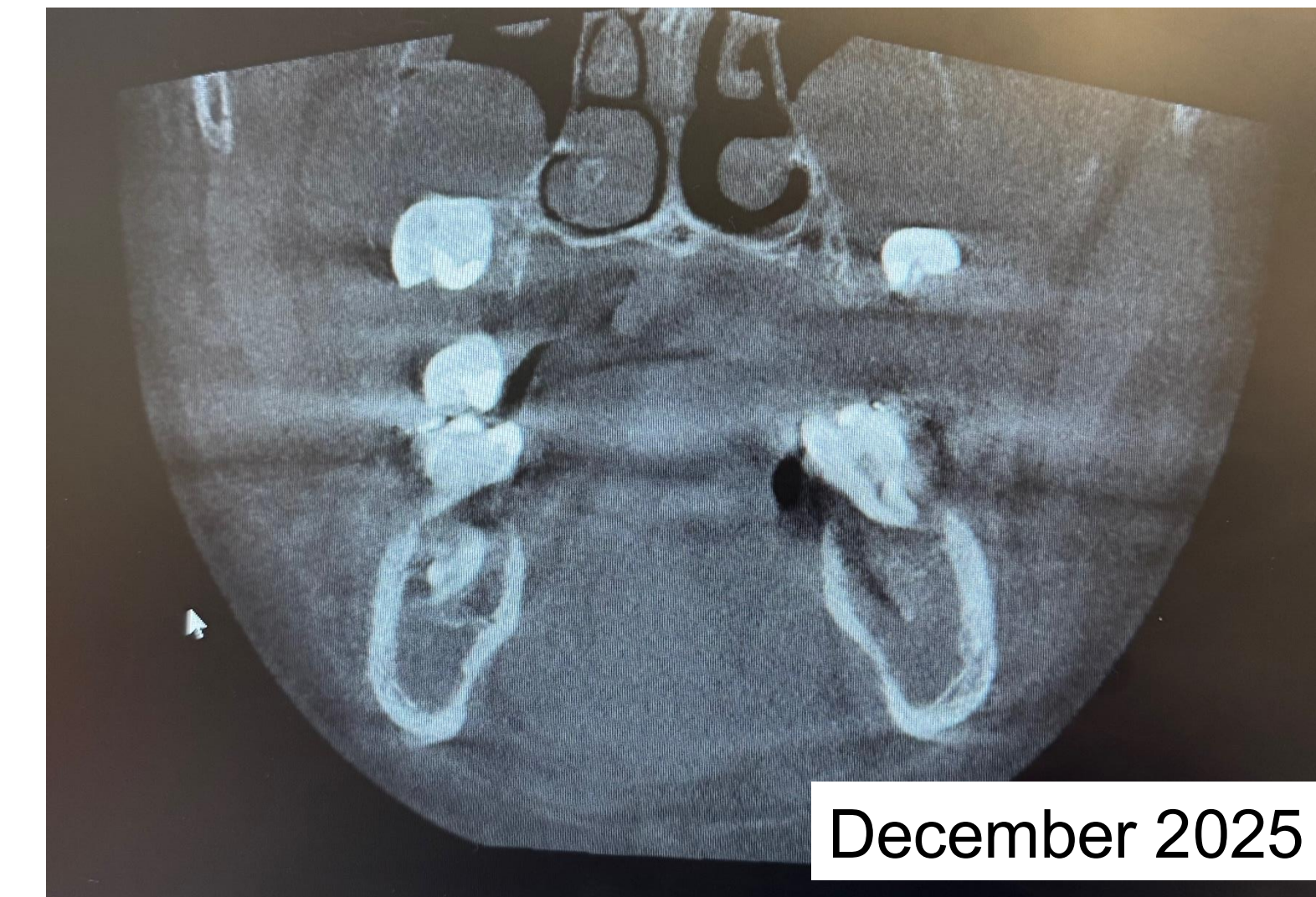
## BACKGROUND

- **Burkitt Lymphoma** is a rapidly developing and aggressive B-Cell Non-Hodgkin's Lymphoma
  - Associated with the Epstein Barr Virus
  - Average age of onset: 3-8 years
  - Males are more commonly affected
  - Oral manifestations<sup>1</sup>:
    - Firm swelling of the jaw
    - Mobile teeth (bone destruction)
    - Jaw and/or tooth pain
    - Jaw radiolucencies
    - Paresthesia
    - Tenderness

## CLINICAL PRESENTATION

- A **12-year-old male** presented to Riley Hospital for Children
- **Medical history:** Type 2 VSD, transposition of the great arteries, and S/P arterial switch
- **Chief Complaint:**
  - Persistent right sided jaw pain
  - Loosening permanent teeth
  - Painful oral abscess with no fluid discharge
  - Bilateral paresthesia of the jaw, diminishing ability to eat
- Placed under inpatient observation
- **Extra-oral examination:** Severe midfacial bilateral swelling
- **Intra-oral examination:**
  - Soft tissue masses on L and R Mx and Md buccal mucosa
  - All permanent dentition was Class II and III mobile
  - Orthodontic brackets present on all teeth
- **CT radiographic findings:** (CT scan interpreted by radiologist)
  - **Multiple lesions of unknown etiology in the skull, jaw, and nasal cavity**
  - CBCT radiographic examination revealed
    - Significant loss of the Mx and Md alveolar bone
    - Loss of the periodontal ligament space on all teeth
    - Loss of the trabeculation pattern of bone in both jaws

## CLINICAL/RADIOGRAPHIC IMAGES



## DIFFERENTIAL DIAGNOSIS

1. Lymphoma
2. Langerhans cells histiocytosis
3. Multifocal tumor disease
4. Dental abscess

## DIAGNOSIS

- ENT performed nasal endoscopy with maxillary sinusotomy with mucous membrane removal
  - Left maxillary sinus mass sent for biopsy
  - Results confirmed diagnosis of **Burkitt Lymphoma (Non-Hodgkin's Lymphoma)**

## TREATMENT / MANAGEMENT

- **Immediate inpatient treatment** (coordination with oncology team):
  - ANHL1131 Group C1 w/ Rituximab NOS
    - ANHL1131 refers to a specific clinical trial<sup>2</sup>
    - Group C1 refers to high risk patients with aggressive NHL involving the CNS<sup>2</sup>
    - Rituximab is a monoclonal antibody used in immunotherapy
      - Targets the CD20 protein on the surface of developing B-cells (and B-cell malignancies)<sup>3</sup>
  - Oncology requested orthodontic bracket and material removal
    - To minimize risk of oral irritation in anticipated chemotherapy-related oral mucositis
    - Due to patient's anticipated severe neutropenia
- **Dental Recommendations**
  - Soft foods and avoid unnecessary contact with teeth
  - Brush 2x daily with a soft bristled toothbrush
    - If unable to brush, then use a soft wash-cloth
  - Discontinue use of Peridex
    - Patient reported of severe oral burning, oral sensitivity, and frail inflamed tissues (not due to a dental plaque origin).

## REFERENCES

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