CANCER EDUCATION DAY

Clinical Presentation & Oral Optimization

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WINDSOR REGIONAL HOSPITAL
OUTSTANDING CARE – NO EXCEPTIONS!

Presenter Disclosure

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Case Presentation

- 63-year-old patient suffering from recurrent mandibular infections
- Previous right tongue SCC 19 years ago treated with:
  - Resection, SND, RFFF reconstruction
  - XRT
- Patient treated at LHSC dental clinic
- Multiple Dental Extractions required S/P XRT
- Developed bilateral mandibular ORN, with pathologic fracture and recurrent infections
- Referred to OMFS

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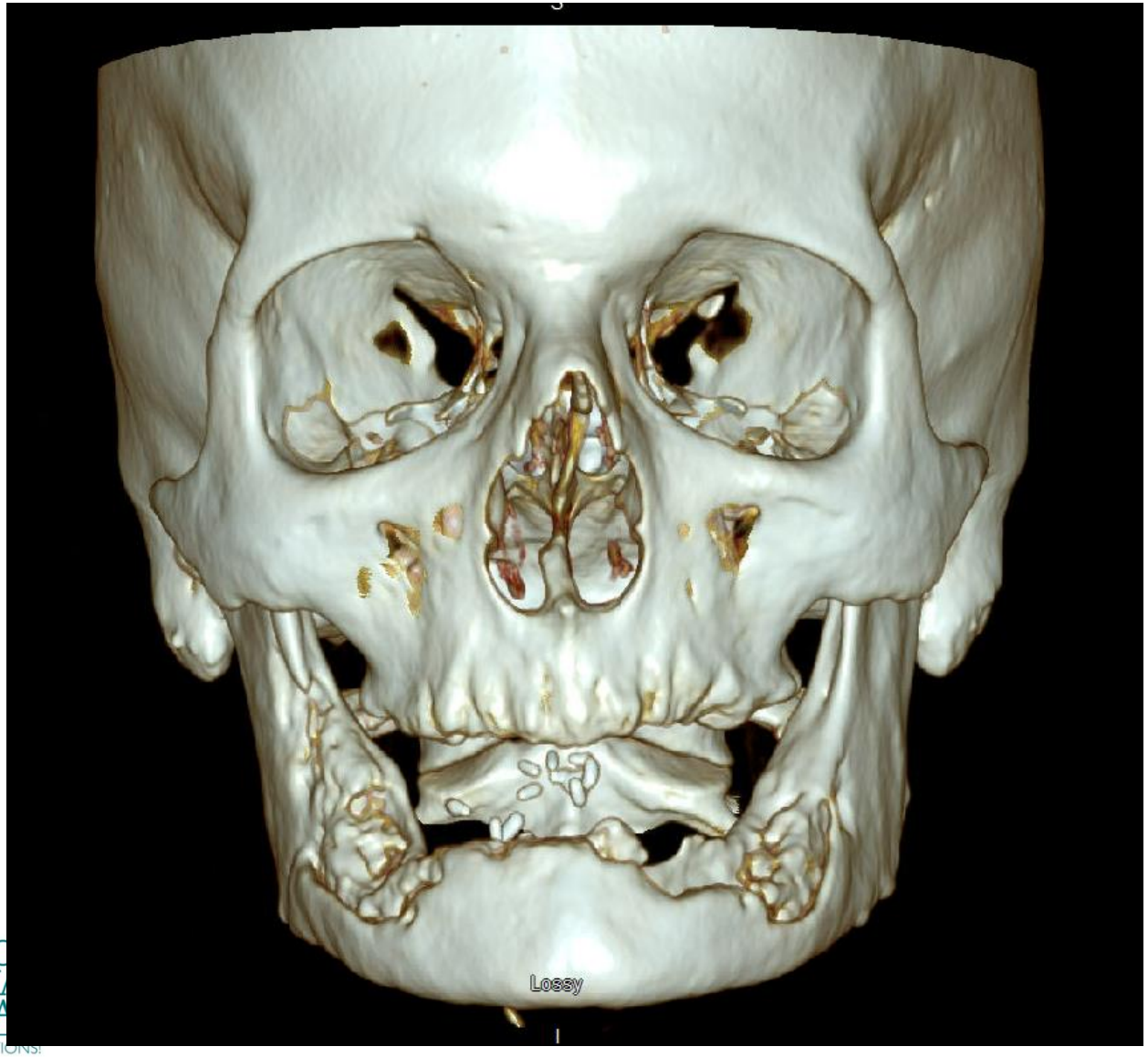
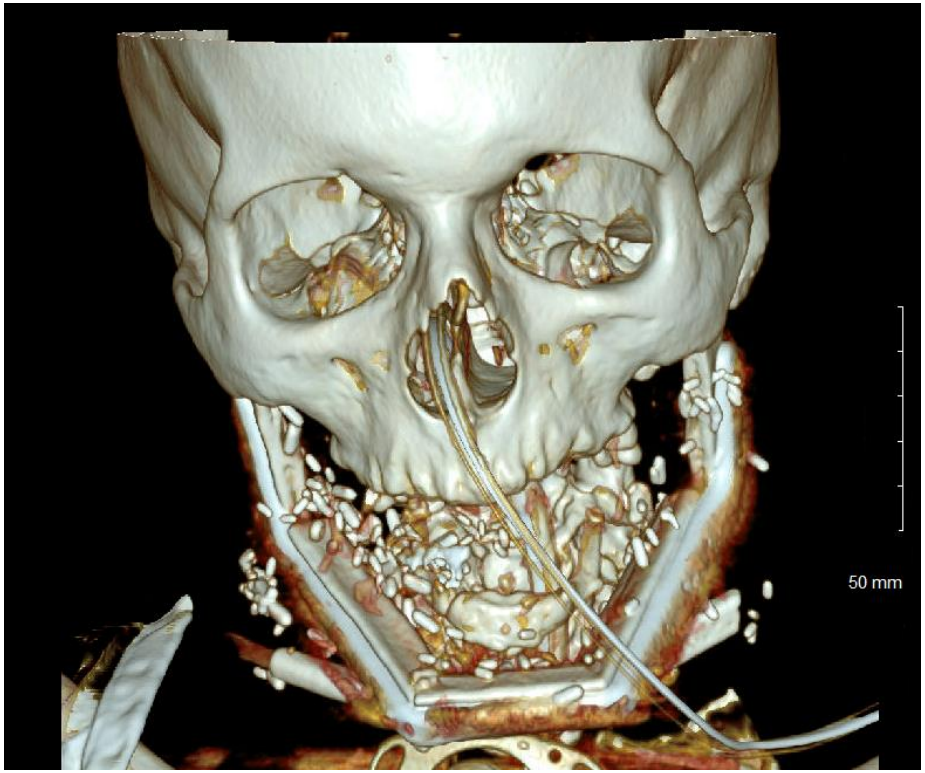
Case Presentation



Case Presentation

- Treated with
  - HBO Therapy
    - Hamilton Health Sciences
  - Subtotal mandibulectomy
  - Tracheostomy
  - Combination of Fibular Free Flap Recon + Radial Forearm Free Flap Recon



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Who requires treatment?

- Dental Care should be provided before, during, and after treatment for patients receiving
  - **Radiation, Surgery, or systemic therapy for head and neck cancer**
  - Hematopoietic cell therapy (including stem cell transplants and CAR T-cell therapy)
  - Initiation of chemotherapy for acute leukemia
  - Oncologic doses of bone modifying agents

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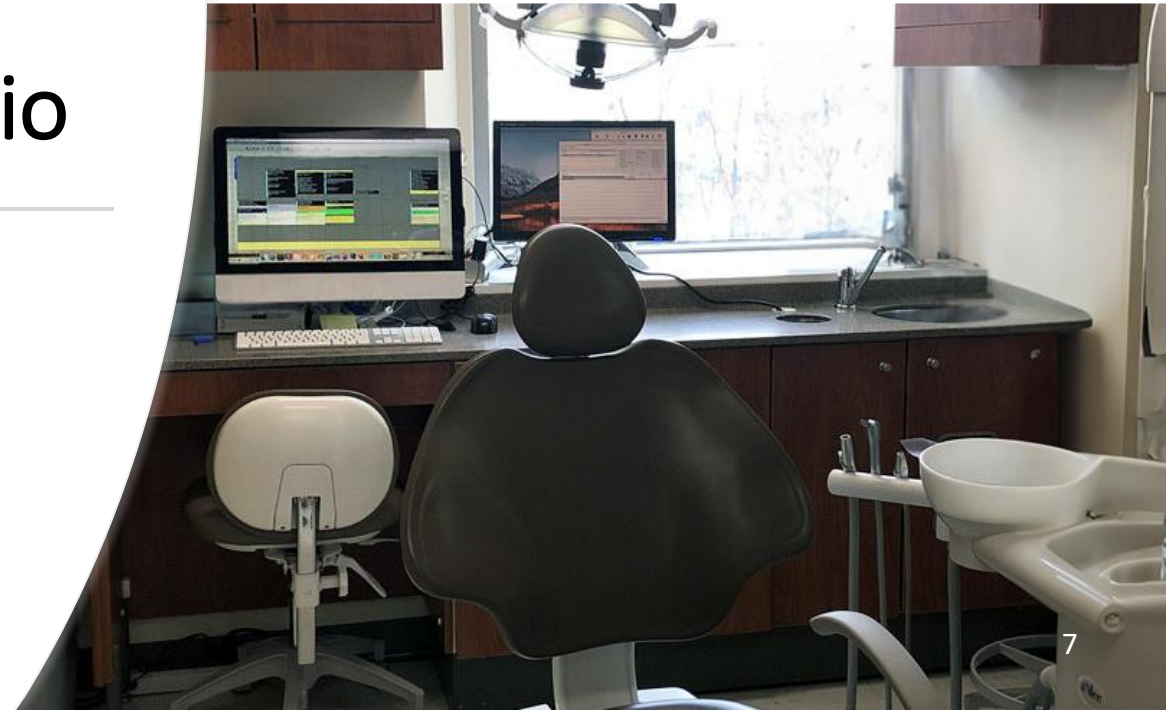
Hospital Dental Clinics are becoming less common in Ontario



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Who Can Assist in Treatment

- Windsor/Essex County lacks:
  - Hospital Based Dental Clinics
  - Dentists specifically trained in management of oncology patients
    - “Dental Oncologist”
  - Cancer Patients must rely upon
    - Community Dentists
    - Oral and Maxillofacial Surgery with Hospital Privileges
    - Referral to Hospital based Dental Clinics in London
- Goal:
  - Eliminating active dental disease which may affect treatment
  - Prevent future dental disease, reducing the need for future dental extraction

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Timeline of Care

- Pre-Treatment
  - Dental/Oral Cavity Optimization
- During Treatment
  - Symptoms management
- Post-Treatment
  - Disease Prevention

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Pre-XRT for Head & Neck Cancer

- Comprehensive dental treatment not always indicated:
  - Dependent Upon
    - Patient Prognosis
    - Anticipated Radiation Strategy (i.e. high-dose regions)
- May be:
  - Comprehensive for patient with excellent prognosis and adequate healing time
  - Limited for palliative patients and those not receiving higher dose radiation to the tooth bearing segments

Pre-XRT for Head & Neck Cancer

- Prevent Future Dental Disease and XRT-related complications
  - Fluoride Treatment
  - Patient Education
  - Regular dental care/follow up

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Before Systemic Therapy

- No comprehensive guidelines have been accepted
- General recommendations suggest:
  - Regular Dental Care
  - A recent dental check up by family DDS in past 6 months
- Goals
  - Reduce risk of dental disease or odontogenic infection affecting patients while immunosuppressed

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Prior to Surgical Treatment

- Dental Recommendations include:
  - Oral Optimization
    - Removal of hopeless teeth, treatment of dental disease, etc.
  - Obtaining presurgical records
    - Dental Models or scans

During Treatment

- Dental Oncologists/ Hospital Dental Clinics
  - Manage oral manifestations of cancer treatment
    - Dysgeusia, Dysphagia, Infectious, Mucositis, Stomatitis, Trismus, etc.
  - Dental treatment only if needed for dental emergencies

https://www.cancercareontario.ca/en/symptom-management/3156

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Ontario Health
Cancer Care Ontario

Symptom Management Algorithm

Pharmacological

- To stimulate residual capacity of salivary gland tissue post-radiation therapy in patients with head and neck cancer, oral pilocarpine and cevimeline (where available) may be offered for improvement of xerostomia and salivary gland hypofunction, although improvement of salivary gland hypofunction may be limited and transitory
- Use of pilocarpine hydrochloride with radiation therapy to reduce xerostomia and salivary gland hypofunction are inconsistent, however in some patients a beneficial effect has been shown on xerostomia
- There is insufficient evidence to recommend for or against the use of amifostine. Amifostine reduces xerostomia after radiation therapy however, tumor protection remains a clinical concern
- There is insufficient evidence to recommend for or against the use of extract of ginger, and mesenchymal stem cell therapy following interventions for improvement of salivary gland hypofunction and xerostomia

Follow-Up and Ongoing Monitoring

- If xerostomia remains unrelieved despite the approaches outlined above, request the assistance of specialists within the oncology consultation team (e.g. hospital dentist, registered dietitian, speech language pathologists, registered dental hygienist

After Cancer Treatment

- Regular Dental Assessment
  - Preferably by Dental Oncology
- Patient education on
  - Oral Hygiene
  - Daily Fluoride use
  - ORN Risk management
- Dental Oncology/OMFS specialty involvement for surgical intervention

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After Cancer Treatment

- If post-radiation concerns exist
  - Referral to appropriately trained surgical specialist
    - Community OMFS with Hospital Resources
    - Hospital based dental clinic with OMFS on staff
- Post-Cancer Treatment Rehabilitation Programs
  - “Oral and Maxillofacial Rehabilitation Program (OMRP)”
    - Comprehensive care to aid in rehabilitation of these patients

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Osteoradionecrosis

- Less common with modern IMRT technology
  - Studer et al. 2004
- Most commonly occurs due to inadequate optimization
  - Niewald et al. 1996
- Can occur from strain on the mucosal/bony tissues
  - Dental Extraction
  - Prosthesis trauma
  - Surgical Biopsy
  - Aggressive dental hygiene therapy
  - Spontaneous
- Lifelong risks occur
  - Curi et al. 1997

Key Points

- Pretreatment dental optimization is critical
- Patient education regarding their oral health necessary to prevent future disease

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References

- Curi MM, Lauria L. Osteoradionecrosis of the jaws: A retrospective study of the background factors and treatment in 104 cases. *J Oral Maxillofac Surg*. 1997;55(6):540-544. doi:10.1016/S0278-2391(97)90478-X
- Niewald M, Barbie O, Schnabel K, et al. Risk factors and dose-effect relationship for osteoradionecrosis after hyperfractionated and conventionally fractionated radiotherapy for oral cancer. *Br J Radiol*. 1996;69(825):847-851. doi:10.1259/0007-1285-69-825-847
- Studer G, Grätz KW, Glanzmann C. Osteoradionecrosis of the Mandibula in Patients Treated with Different Fractionations. *Strahlentherapie und Onkol*. 2004;180(4):233-240. doi:10.1007/s00066-004-1171-z

Question & Answer