Oral Prosthetic in Head and Neck Reconstructions

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Preoperative evaluation

- Evaluation by surgeon
  - History, Physical
  - Endoscopy
  - Biopsy
  - CT
  - MRI
Preoperative Evaluation

- Evaluation by Maxillofacial Prosthodontist
  - Dental health status (Carries)
  - Panorex
  - Extraction?
  - Preoperative Dental Molds
  - Surgical suggestions
Surgical Strategies

- Resection limited to disease only
  - Avoid hemimaxillectomy if possible
  - Preserve alveolar ridge
  - Preserve central incisors
  - Preserve tuberosity
FIG. 126-2. Areas that may support prostheses should be conserved, consistent with disease removal. In the maxilla, these areas include the tuberosity, alveolar ridge, and hard palate. In the mandible, they are the retromolar pad, alveolar ridge, and buccal shelf.
Surgical Strategies

- Resection through socket of extracted tooth
  - Prevents additional loss of teeth
- Preservation of strip of mucosa
  - Used for coverage of bone
Surgical Strategies

- Skin grafting of maxillary cheek
- Resection of inferior turbinate
- Skin grafting to contact areas of obturator
Final position of obturator.

Note retention dependent on contact with maxillary sinus.

Skin grafting to area of contact prevents complications.
Classification of obturators

- Surgical
- Postsurgical
- Definitive
Surgical Obturator

- Designed preoperatively
- Installed sterilely
- Scaffolding for packing
- Increases postoperative function
- Psychological advantage for patient
Surgical obturator design

- Communication between surgeon and prosthodontist
  - Anticipated defect
  - Method of securing surgical prosthetic
Surgical Obturator Design

- **Minimal resection coverage**
  - May have incomplete coverage, exposed packing, poor fit
  - No need for modification

- **Radical resection coverage**
  - May require intraoperative modifications by surgeon
Methods to secure surgical obturator

- Palatal bone screw
- Suturing
- Circumzygomatic wiring
Postsurgical obturators

- Used from packing removal to 3-12 months post-op
- Bulb extension into defect
- Contact with remaining teeth important
- Anterior teeth only
  - Avoid occlusive relationship
- Tissue-conditioning/soft reline material
Definitive obturator

- Placed after tissue remodeling a minimum
- Occlusive relationship important.
- Modifications a minimum
- Removable to allow cleaning
Edentulous patient

- Resection of inferior turbinate
- Skin grafting of contact areas
- Tri-poding effect
- Spring loaded dentures
The Irradiated Patient

- When to remove teeth
  - Dental health
  - Reliability of the patient
  - Location of teeth in question
  - Area to be radiated
Preservation of Maxillary teeth

- Pre-extraction antibiotics
- Experienced Oral surgeon
- Osteoradionecrosis in 1-30%
Common Complications

- Xerostomia
- Trismus
- Mucositis
Xerostomia

Salivary rates as low as 1%

- Artificial saliva
- Topical sodium fluoride
  - Custom tray
Mucositis

- Erethema, tenderness, desquamation as early as 2 weeks
- Decrease oral intake
- Unable to tolerate obturator
Treatment of Mucositis

- Good oral hygiene (soft brush, mild toothpaste)
- Sodium bicarbonate, H2O2 rinses
- Benadryl elixirs
- Sucrafate solutions
- Topical anesthetics
- G-tube placement
Trismus

- Fibrosis of muscles of mastication, TMJ
- Daily exercises required for long periods of time
- Prolonged holiday from exercises results in permanent fibrosis
Conclusion

- Early consultation with Maxillofacial Prosthodontist
- Surgical planning to include post-operative rehabilitation
- Communication throughout treatment process