

Oral Tumor Assessment and Diagnosis

Potential Steps Prior to Referral

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Continuing
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Identification

- Owner identification
 - Visual
 - Affecting maxillofacial symmetry
 - Daily homecare
 - Concurrent clinical signs
 - Oral discharge/bleeding/drooling/changes in eating and/or behavior
- Veterinary identification
 - Conscious examination
 - During COHAT

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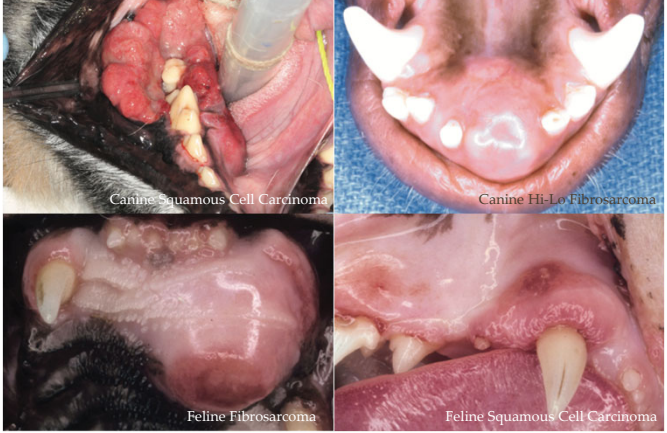
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Differentials

- Neoplastic mass
- Non neoplastic mass
- Odontogenic Cyst
- Odontogenic Infection
- Non-odontogenic Infection

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Canine Squamous Cell Carcinoma

Canine Hi-Lo Fibrosarcoma

Feline Fibrosarcoma

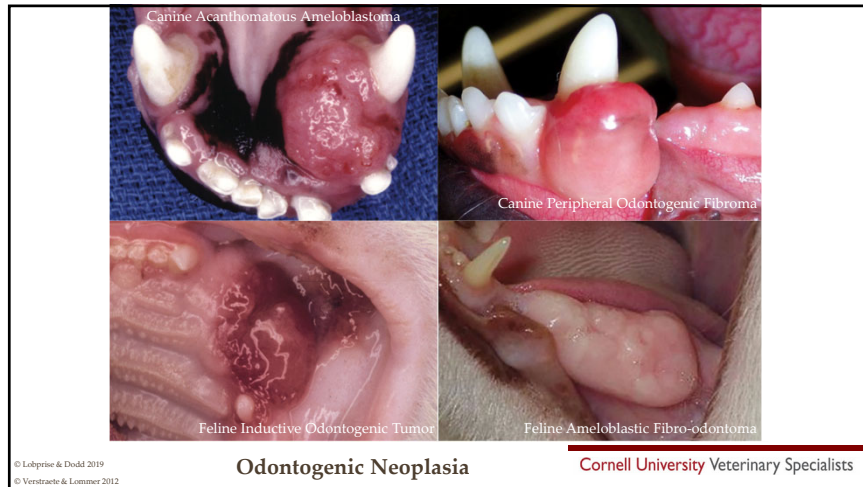
Feline Squamous Cell Carcinoma

Non-Odontogenic Neoplasia

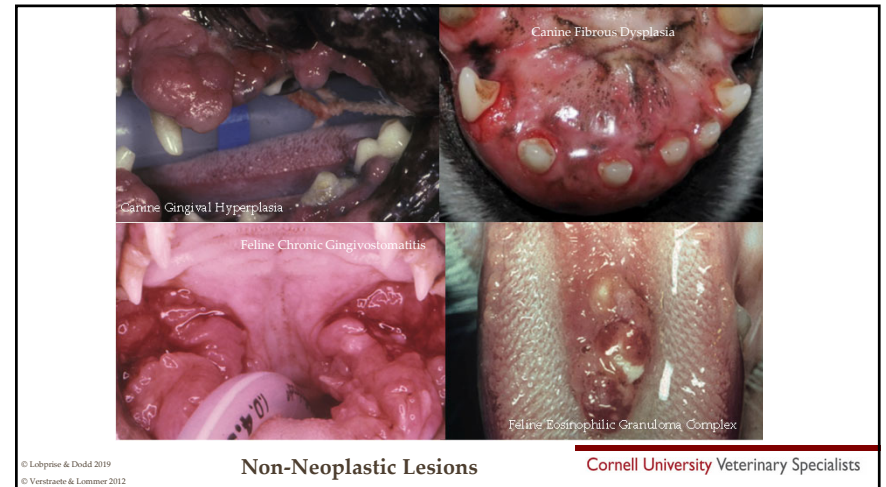
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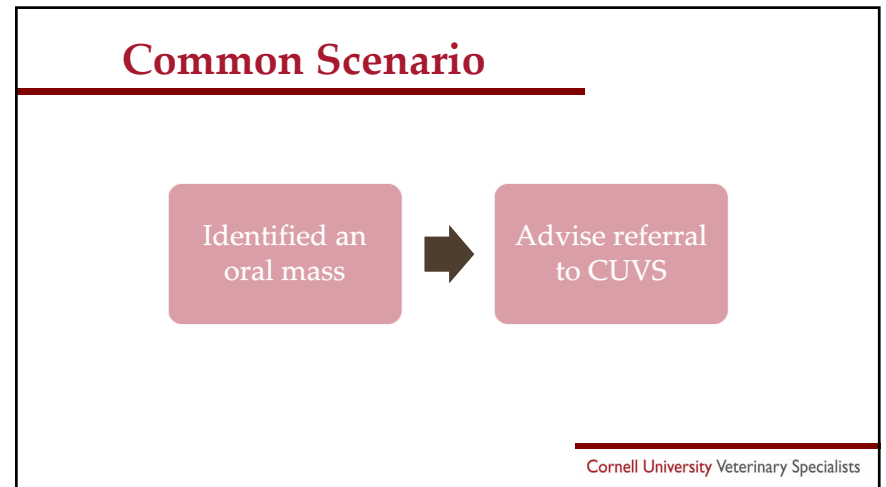
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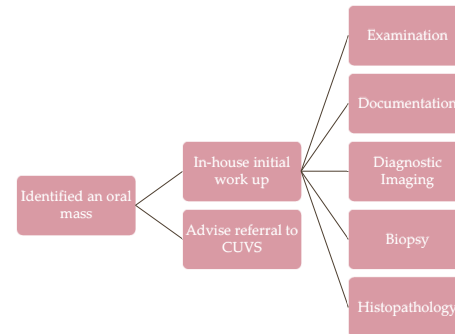
Immediate Referral

- Why not?
 - Is it necessary?
 - Pathology of the mass
 - Experience of the veterinary surgeon
 - Facilities available to the veterinary surgeon
 - Resources of the client?
 - Motivations of the client?
 - Availability of specialist?
 - Limitations of specialist?

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Alternative Scenario



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Client Communication

Unknown Oral Mass	<ul style="list-style-type: none"> • Characterization required by sampling
Sampling	<ul style="list-style-type: none"> • Limitations of FNA in the oral cavity • Conscious examination limits oral mass and oral health evaluation
Biopsy	<ul style="list-style-type: none"> • Limitations of sedated biopsy • Limitations of sedated examination
COHAT	<ul style="list-style-type: none"> • General Anesthesia for Comprehensive Oral Examination • Dental Radiographs (minimum of mass) • Biopsy of mass

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Importance of the COHAT

- General Anesthesia
 - Safety
 - Control
 - Allows for comprehensive approach
- Comprehensive Oral Examination
 - Accurately assess oral mass
 - Assess overall oral health
 - Very useful for the vet receiving referral
- Radiography
 - **Assess potential bony involvement**
 - Assess extent of oral mass
 - Assess overall oral health

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Oral Examination

Do	Don't
<ul style="list-style-type: none"> • Take photos • Use a dental chart • Assess all intra/extra oral structures 	<ul style="list-style-type: none"> • Probe tumor and mouth

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Concurrent Oral Disease

- Periodontal/Endodontic/Tooth Resorption
- To treat or not to treat?

Pro's	Con's
<ul style="list-style-type: none"> • Elimination of disease • Elimination of pain/discomfort • Reduce complications with surgery and radiation 	<ul style="list-style-type: none"> • \$\$\$ • Time consuming • Risk of interfering with tumor site • Risk of seeding tumor

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Diagnostic Imaging

Skull Radiography	Dental Radiography	Computed Tomography
May identify bony involvement	Should identify bony involvement	3D details of bony and soft tissue involvement
Limited diagnostic quality	Improved diagnostic quality	Excellent diagnostic quality
Common in-house availability	Limited in-house availability	Rare in-house availability

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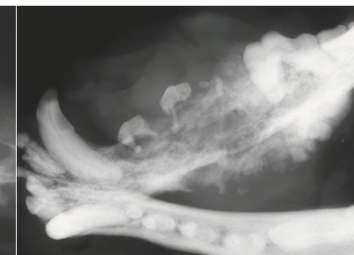
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Skull Radiography

Feline Multilobular Osteochondrosarcoma



Canine Osteosarcoma

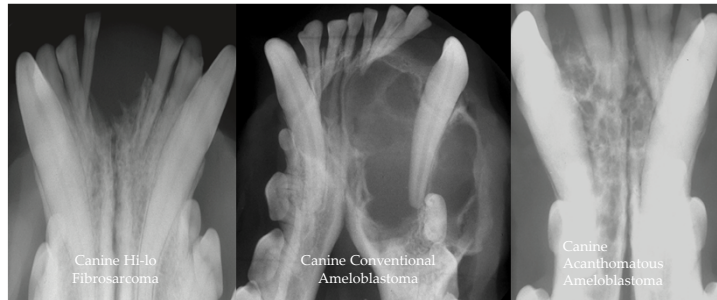


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Dental Radiography

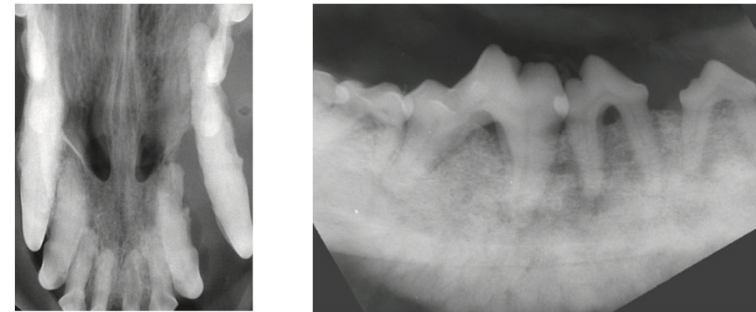


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Dental Radiography

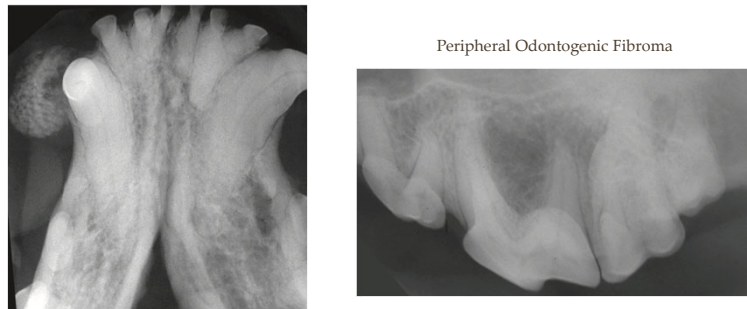


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Dental Radiography



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Dental Radiography

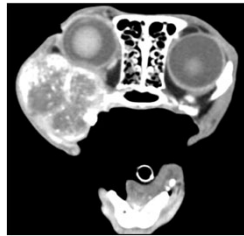


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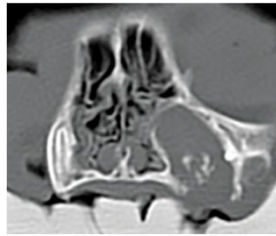
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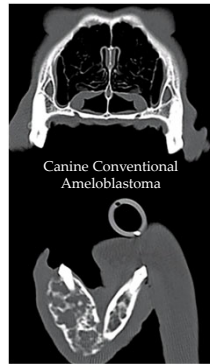
Computed Tomography



Feline Squamous Cell Carcinoma



Feline Inductive Odontogenic Tumor



Canine Conventional Ameloblastoma

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Biopsy

Do

- Local anesthesia
- Appropriate size
- Appropriate depth
- Sample centrally

Don't

- Create a flap
- Remove teeth
- Enter through skin
- Remove entire gingiva

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Biopsy Techniques

Soft Tissue

- Punch biopsies
- 2mm minimum depth
- 3mm minimum size
- Suture 4/5-0 absorbable monofilament simple interrupted

Hard Tissue

- Osteotome + Mallet
- Trephine
- Rongeurs
- High Speed Bur
- 2mm minimum depth
- 3mm minimum size

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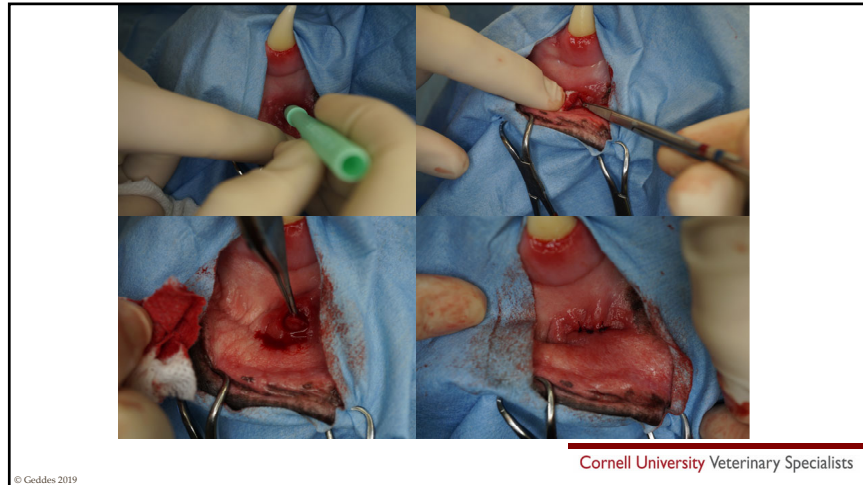
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Hemostasis

- Always attempt to place sutures
 - Typically sufficient
- Digital pressure
 - Patience
- Chemical cautery
- Last resort
 - Battery operated cautery
 - Radiosurgery/Electrosurgery

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Gingival Masses & Sampling

- Not always benign and non-invasive
- Respect the periodontium
- Refer to Dentist if out of comfort zone

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Gingival Biopsy Technique

- Debulk mass with blade or radiosurgery
- Gingivoplasty with diamond bur or radiosurgery
- Preserve
 - Gingival height
 - Gingival thickness
- Restore gingival contour

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Gingival Biopsy Technique

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Gingival Biopsy Technique

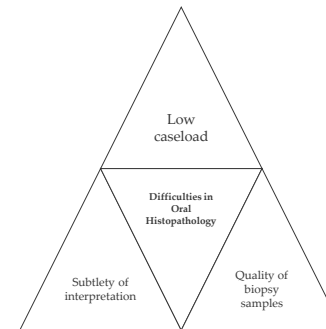


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Histopathology



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Submitting Histopathology

- Label anatomical site correctly
- Provide
 - Photos
 - Diagnostic imaging
 - History
 - Differentials
- Samples
 - Large enough
 - More than one if possible
- Consider separate lab for your oral histopathology

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Post-Operative Care & Follow Up

- Oral rest
 - 2 weeks
 - Soft food
 - No toys
- Analgesia
 - ~ 1 week
 - NSAID
 - Opioid (Cats)
 - +/- Gabapentin
- Oral recheck examination
 - 2 weeks post procedure
- Histopathology
 - Utilize CUVS for consultation

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Take Home Points

- Assessment/diagnosis often within primary practice capabilities
- Visual presentation \neq biological behavior
- Importance of COHAT
- Diagnostic imaging is essential
- Considered biopsy approach
- Challenges of oral histopathology
- We are always here to help!

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