

## **What am I supposed to do with that epulis?**

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Veterinarians frequently encounter gingival masses in their patients in the course of routine examinations and dental cleanings. Then we wonder what is the best course of action. Should we trim the gingival mass back to normal contours? Should we extract the tooth? Should we curette the alveolus? Should we extract the teeth on either side of the mass? Are we supposed to get 3 mm margins? 1 cm margins? 2 cm margins? How about radiation therapy? Maybe we should get an oncology consult and see if chemotherapy will help. Maybe we should have obtained blood work and chest x-rays and lymph node aspirates before we started cutting.

What am I *really* supposed to do with that epulis?!

Here's the problem: epulis just means gum lump, nothing more. It is not a diagnosis, it is a gross visual description. And there are a wide variety of conditions that may result in gum lumps. So their biologic behavior varies as well. One treatment does not fit all.

That is why diagnosis must come before treatment. It is tempting to attempt definitive treatment in one procedure and be done with it. But this approach may result in over- or under-treatment. What if you extracted a tooth and curetted the alveolus and then found out it was a malignancy that not only needed 1 cm margins but now you have disseminated the cancer? Or how would you feel if you took a 1 or 2 cm margin segmental mandibulectomy and it turned out your patient only needed an extraction or two? And what would your client say about that?

So we need two steps. You need to discuss with your client all appropriate treatment options and the prognosis for each before deciding how much to cut. Again, *diagnosis first, treatment second*.

**Step 1** is obtaining dental x-rays and a biopsy to determine the expected biologic behavior of the disease. Dental x-rays help characterize the lesion as more or less aggressive, and help determine how far it extends into bone and around adjacent teeth.

Here are some guidelines to help interpret dental x-rays of these lesions:

Non-aggressive

Well-defined bony lysis  
Distinct margins  
Narrow zone of transition  
Thinning expanding cortex  
Smooth layers of periosteal new bone  
Displacement of adjacent teeth

Aggressive

Poorly defined bony lysis  
Ragged margins  
Wide zone of transition  
Cortical lysis  
“Sunburst” lytic and productive periosteum  
Leaves adjacent teeth in position

Cytology may be helpful in some cases but does not give the pathologist as much information as biopsy. Try to get a wedge or a punch sample right down to include bone. This is usually a very brief general anesthesia with a local or regional block. We often send home some pain control meds until the next step.

**Step 2** is surgical removal of the lesion. This is scheduled after you get the biopsy report back and have a good discussion with the client about treatment options and prognosis for each. How much you remove is determined by the histologic diagnosis. This may be definitive or palliative, and further staging such as CT/MRI may be helpful. An oncology consult is a great idea, because radiation, chemotherapy or other adjunct treatment may be options as well.

## A quick outline of epulide considerations

<u>Epulis diagnosis</u>	<u>Biologic behavior</u>	<u>Surgical treatment</u>
Focal fibrous hyperplasia	More benign	Perio cleaning, gingivectomy
Fibroma, AKA "fibromatous" or "ossifying epulis"	Benign, but recurs with inadequate excision	extraction, 3mm margins
Feline epulis syndrome	"	en bloc w/ 3 mm margins
Giant cell epulis Acanthoma, AKA "acanthomatous epulis", recurs Acanthomatous ameloblastoma, Odontogenic tumors, Odontomas, APOT/CEOT, Fibroameloblastoma etc	Locally invasive, but don't metastasize, with inadequate excision " " " "	en bloc w/ 1 cm margins
Plasmacytoma	Locally invasive, Slow to metastasize	en bloc w/ 1 cm margins, and/or chemotherapy
Feline sarcoid	multifocal, invasive, No metastasis?	?????????????
Malignancies including Squamous cell CA, Fibrosarcoma, Melanoma, Lymphoma, Malignant odontogenic tumors, (carcinomas, sarcomas)	Locally invasive, may metastasize  early metastasis	further imaging, staging, en bloc w/ 1 to 2 cm margins, oncology consult

Further reading:

Gardner DG. Epulides in the dog: a review. J Oral Pathol Med 1996;25(1):32-37

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Colgim LM, Schulman FY, Dubielzig RR. Multiple epulides in 13 cats. J Vet Pathol 2001;38(2):227-229

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