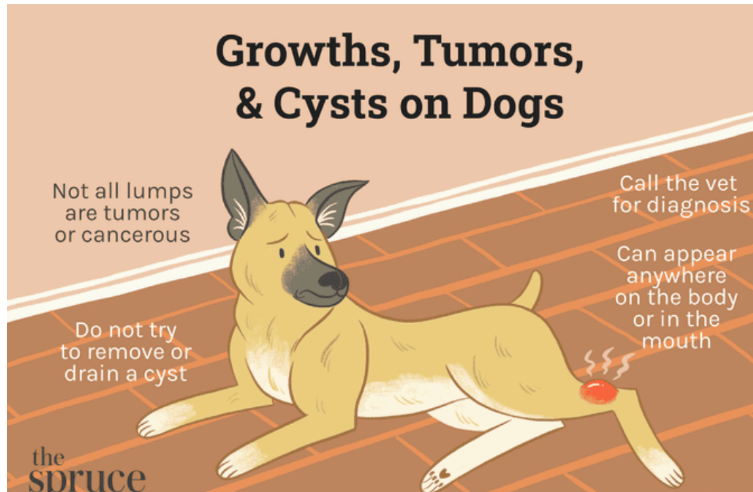
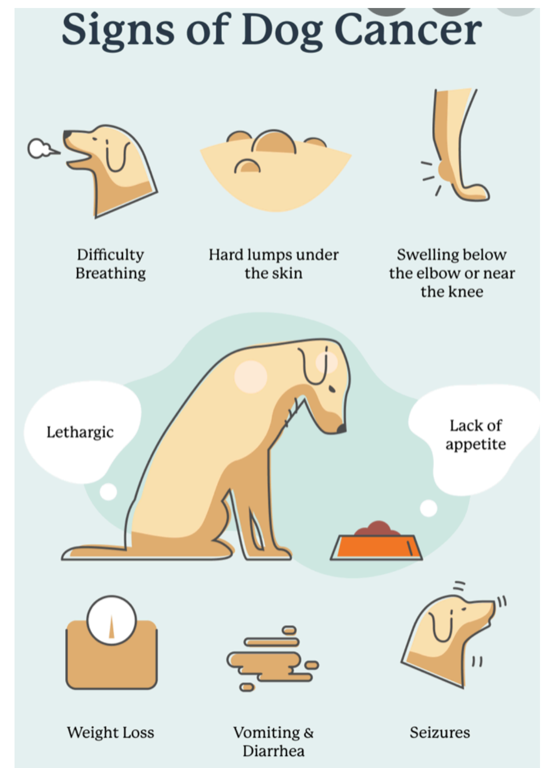
TUMOR (MASS)

What factors are in play when surgically treating a mass-effect on the outside surface of a patient?





<u>SYNOPSIS</u>

Removing what turns out to be a benign lipoma with lots of extra skin is a breeze, in retrospect. Removing an aggressive, highly invasive soft tissue tumor with large portions of normal anatomy can, in retrospect, be a medical management & client-relations nightmare. Finding the sweet spot in these scenarios is highly dependent upon preparations—both in medical care & client education.

What is it? You could argue that we'll know the answer to that question once it's off, & the pathologist sends the histopathology report. I'd argue that more data is generally good for preparations. "More data" is conditional, as usual, as it relates to the patient morbidity that occurs in collecting that data. A good needle aspirate cytology reviewed by highly educated eyes rarely tips the scale toward "too much morbidity". An MRI under general anesthesia might be too much, or not. This balancing act is one that involves client discussions of patient morbidity & the costs involved—"What medical/financial risks are you willing to take to get information that might change the plan & protect your pet from illogical/harmful procedures?" (You can pivot that to a positive question too.) Pet owners are a diverse group & will answer these questions in diverse ways.

The more surgical morbidity involved with removing it "the correct way", the more data I like going in. We should NOT amputate a leg for a spontaneous, organizing hematoma, but maybe we should for a high-grade mast cell tumor. If a low-grade tumor is small & the patient is geriatric, maybe radical resection is illogical in the face of anticipated longevity & quality of life. Surgically removing something that has already metastasized is usually a bad decision relative to patient quality of life & longevity. Occasionally the removal of a necrotic/painful/disabling mass

in the face of known disease elsewhere can be an improvement to quality of life, if NOT longevity. Preoperative staging, to some extent, is usually beneficial when including the low morbidity tests available (physical exam, radiographs, tumor or lymph node cytology).

What will it take to get rid of it? We can all appreciate that “huge” does NOT necessarily mean bad—lipoma case-in-point. But big is challenging from the surgical perspective. From clip margins to wound closure, big masses command more preparatory respect!
Location is critical for several reason:

1) movable structures make for more difficult healing,
2) vital/essential anatomy may be in proximity & can’t be disturbed &
3) surrounding skin is generous in some locations & skimpy in others.

Preoperative & intraoperative surgical planning involves choosing the best route to recovery, balancing the risks of close/dirty margins with postop morbidity, life expectancy, co-morbidities, & availability/willingness to use adjunctive therapies.

- ? Choosing to allow healing by second intention (morbidity) to improve margins & minimize the need for 2nd or 3rd procedure might be a good choice; several weeks of bandage care is the management tradeoff, for example.
- ? Choosing to do a major resection & 2 minor skin flap procedures (vs 1 procedure resection/skin graft with 6wks of bandages) might be the best course for a large breed dog during a wet springtime owned by a mobility-impaired owner.
- ? Choosing to remove a mass with complete margins the first time (versus “debulking” (boo, hiss) & seeing if it comes back), might optimize longevity, quality of life & financial expenditure over the life of the patient.

Aftercare & Outcome:

- House rest, with no running, jumping or rough play for 2 weeks following surgery.
- Nocita (bupavacaine): 3-days long lasting local block for pain management will be used.
- Pain medications &/or sedation are often prescribed for several days following surgery.
- Primapore: adhesive band aid with antibiotic ointment will be used. The Primapore can be allowed to fall off naturally after 5 days. Only if the Primapore is dirty or soil that it should be removed sooner. Forcing the Primapore off early may result in skin irritation.
- An Elizabethan collar may be necessary to prevent licking of the surgical wound. Must be wore at all times. E-collar can be taken off during potty breaks or meals only under adult supervision.

Complications that may arise with this procedure are:

- ? Bandages may be needed for an extended time, with their associated frequent changes & clinic visits.
- ? Drains may be needed, with their associated owner supervision/management & clinic visit for removal.
- ? Wound margins may dehisce; some will be minor marginal necrosis & others will leave wounds to be addressed & managed (2nd intention or surgical revision.)

  Poor postoperative outcomes may be due to the above complications, and/or:
- ? Skin flap/graft failure; may require additional surgery or 2nd intention healing.
- ? Local tumor recurrence; dependent upon tumor type, grade, anatomic limitations.
- ? Distant tumor metastasis; dependent upon tumor type, preoperative staging
- ? Functional disability created by surgical resection; may be related to impaired or absent limb or local contracture created by 2nd intention healing.

What a surgeon needs prior to surgery:

- ? Photo images of the mass or hands-on exam.
- ? Access to the client for decision-making on the day of surgery (by phone.)

General considerations & complications for all surgery/anesthesia procedures are:

- ? Difficult and/or painful anesthetic recovery (variable; may require additional medications or re- hospitalization)
- ? Incisional infections (rare, minor; usually require oral antibiotics)
- ? Incisional dehiscence (rare, minor or major; may require surgical revision)
- ? Adverse anesthetic event (rare, major; may result in serious impairment or death)

If you have any questions, please feel free to ask your primary veterinarian &/or veterinary surgeon.

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