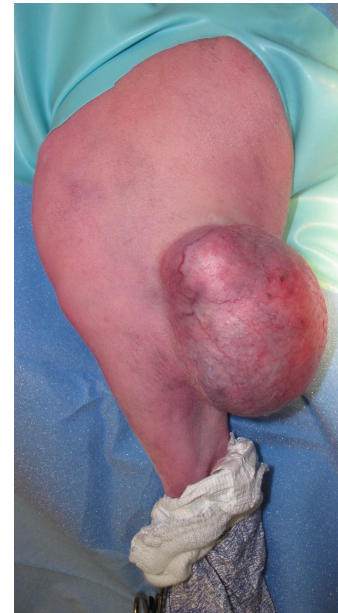
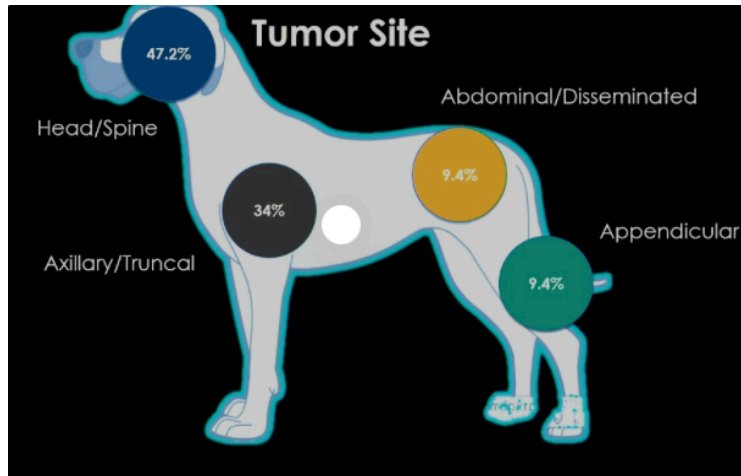


# STS SOFT TISSUE SARCOMA(S)



## **BACKGROUND**

STS are diverse group of tumors & include fibrosarcoma, peripheral nerve sheath tumor, hemangiopericytoma & liposarcoma. These are all grouped under STS because they have a similar biological behavior & outcome. STS are locally aggressive tumors with a reportedly high risk of local recurrence, however this has been recently been questioned especially for STS AT or BELOW the elbow & stifle. The risk of metastasis is LOW to MODERATE & is dependent on histologic grade.

## **DIAGNOSIS**

The accuracy of fine-needle aspirates (or cytology) for the diagnosis of STSs is only about 50% accurate. A diagnosis of a STS is often suspected if the cytology is inconclusive because most infections & other tumor types can be diagnosed with a high degree of accuracy (>90%) with cytology. An incisional biopsy can be considered for those tumors NOT diagnosed with cytology.

## **CLINICAL STAGING**

Ultrasound &/or CT scans of the tumor are occasionally recommended to determine the extent of the local tumor & assist in surgical planning. Thoracic radiographs &/or CT scans are recommended to assess the lungs for metastatic disease.

## **TREATMENT**

The recommended treatment for STSs is surgical excision. The surgical approach depends on the location (truncal [chest or abdomen - the main body] vs extremity [legs, knee, elbow or digits], size, degree of invasiveness & histologic grade. Wide excision (>3cm lateral margins & 1 fascial layer for the deep margins) is recommended for truncal STSs, grade III STSs, STSs >5cm & invasive & fixed STSs. Wide excision of STSs on the limbs & head is often NOT possible. In these cases, particularly if mobile, well-circumscribed & <5cm, then marginal excision is possible with low local recurrence rates.

In one large study of marginally excised STSs in dogs, the overall local recurrence rates for histologically incompletely excised were at grade I (7%), II (34%) & III (75%) STS, respectively; & no dog with a completely excised STS developed local recurrence regardless of histologic grade. Historically, radiation therapy has been recommended for incompletely &/or marginally excised STSs & this is often recommended in the treatment of STSs in humans, but there is no evidence to support multimodality therapy in dogs as of yet. There is no published study comparing surgery alone to surgery & radiation therapy for dogs with incompletely excised STSs. There have been 6 studies published on marginal &/or incomplete histologic excision of STSs alone & 3 studies published on radiation therapy following marginal &/or incomplete histologic excision of STSs. While it is difficult to compare these studies because of different study criteria, the local recurrence rates varied from 11% - 28% & 16% - 31% alone & surgery & radiation therapy, respectively.

Chemotherapy may be indicated for dogs with grade III STSs, but the current published data shows no significant difference in outcome between dogs who were & were NOT treated with post-operative chemotherapy.

## **PROGNOSIS**

The prognosis is good for dogs with STSs. The risk of metastasis is dependent on the histologic grade with metastasis reported in up to 13% of dogs with grade I tumors, 20% with grade II STS & up to 50% with grade III tumor. The median survival time following surgical excision alone is 1,416 days & 2,270 days for dogs with incompletely excised tumors treated with post-operative radiation therapy.

## **MASS REMOVAL Post-Surgery DISCHARGE**

Thank you for bringing your pet to your primary veterinary clinic or hospital. As you know, your pet has just had a mass or masses removed. Surgical removal can be curative for certain tumors, but others may return depending on how aggressive they are.

The following are instructions for the optimal recovery of your pet:

### **ACTIVITY**

Please keep indoors or closely confined for the next 7-10 days so the incision can stay clean & dry. No jumping, running, or rough play for 10-14 days. Leash walks only are recommended. After 10-14 days, your pet can return to normal activity. Excessive activity often leads to re-injury or serious complications that may necessitate re-operation. This means additional expense to you & added discomfort to your pet.

### **ANESTHESIA**

When your pet is discharged, they may still be groggy from the anesthesia. They may appear depressed, wobbly & may tremble. They should be allowed to recover in a quiet room at home away from other pets. Check on their progress intermittently.

### **BANDAGES (if applicable)**

A large modified Robert Jones bandage may be used on your pet depending on your veterinarian's recommendations based on the location of the mass removal. This bandage may need to be changed or removed based on your veterinary surgeon's recommendation & the purpose of the bandage for each individual patient. You the owner must monitor for swollen foot or digits; the middle two toes if swollen will be spread a part; also you can compare the opposite foot to the surgery limb foot. Monitor for cold feet & again compare foot temperate with the opposite leg. If the bandage gets wet, soil or dirty it must be changed &/or removed immediately within 1-2 hours.

A Primapore band aid may be used on your pet's skin to cover the area where the mass removal & the incision was made. Typically, the Primapore will have antibiotic ointment underneath & skin glue on the edges of the Primapore. The Primapore can be removed with in 5 - 7 days unless wet, soil or dirty then it must be removed sooner rather than later within 1-2 hours.

### **FOOD & WATER**

First offer only small amounts of water, & if your seems alert & hungry, offer small amounts of food (~ 1/3 of usual meal). Every pet recovers differently. Some pets may NOT want anything at all the first night. If your pet vomits, withhold food until the next morning. Call our office immediately if vomiting persists. By the next morning they should be alert & have a normal appetite. They can then be fed her normal volume of food.

### **BATH TIME**

Do NOT bathe your pet for 10-14 days (until the incision is healed). The incision should stay clean & dry. If there is a bandage on your pet then absolutely no bath time.

### **MONITORING**

Check the incision daily for signs of excessive redness, swelling, or discharge. If any of these are noted, please contact us immediately.

### **ELIZABETHAN COLLAR (E-Collar)**

Please keep the E-collar on your pet at all times until the sutures are removed. Licking or chewing at the suture line can cause complications that necessitate re-operation, which leads to added expense. Most animals adjust to eating & drinking just fine with the E-collar. If your pet seems to have trouble eating or drinking with the E-collar on, you may briefly remove the E-collar for these activities.

### **SUTURE REMOVAL**

Unless otherwise instructed, your pet likely has skin sutures that need to be removed in 10-14 days following surgery. Some pets may NOT have external purple color sutures; therefore he/she do NOT need sutures removal; however, it is imperative & important to still get a 10-14 days progress recheck with your primary veterinarian. Before your pets get discharge, please schedule your recheck appointment. Please call before stopping by to ensure a veterinarian is available. Suture removal is usually free of charge.

### **HISTOPATHOLOGY**

If you have requested samples from the tumor to be submitted to the lab, results are usually returned in about a week. Your primary veterinarian will contact you with the results as soon as he or she gets them.

### **RX(s) / (MEDICATION(s))**

If you requested pain medication to be given, the medication should control pain for up to 24 hours following surgery. If medication has been prescribed & dispensed, please give this medication to your pet according to label instructions. If your animal seems excessively painful, please contact us immediately. Signs to look for pain are vocalization, panting, anxiety, licking or biting at the incision site & decrease in energy or lack of appetite.

Your pet received a local injection at the end of the surgery to help numb & control pain at the surgery site. This 3 day long lasting injection is called NOCITA. For the first 3 days, you may want to consider dosage reducing to the lowest effect of the pain medication +/-sedation. NSAID should be given at the full dosage with food.

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

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