southpaws

Providing innovative and compassionate solutions for vets, pets and owners

3 Roper Street
Moorabbin VIC 3189
www.southpaws.com.au
email: info@southpaws.com.au
03 9553 1775 (Landline)
03 8677 7630 (FAX)

Physiotherapy
Under water treadmill

Cancer Surgery

Radiation Oncology

Chemotherapy
Platipump
Conventional chemo

Orthopaedic Surgery
Arthroscopy
Hip replacement
TPLO

Soft Tissue Surgery

Neurosurgery
Hemilaminectomy
Ventral Slot
Brain Surgery

Minimally Invasive Surgery
Laparoscopy
Thoracoscopy

Reconstructive Surgery

Cardiothoracic Surgery

Advanced Imaging
CT
Fluoroscopy
Ultrasonography
CR
MRI access

Internal Medicine
Gastroenterology
Respiratory Disease
Endocrinology
Neurology
Urology

Lecture Announcement: **The Bees Knees, a practical approach to stifle surgery in dogs** - by Charles Kuntz

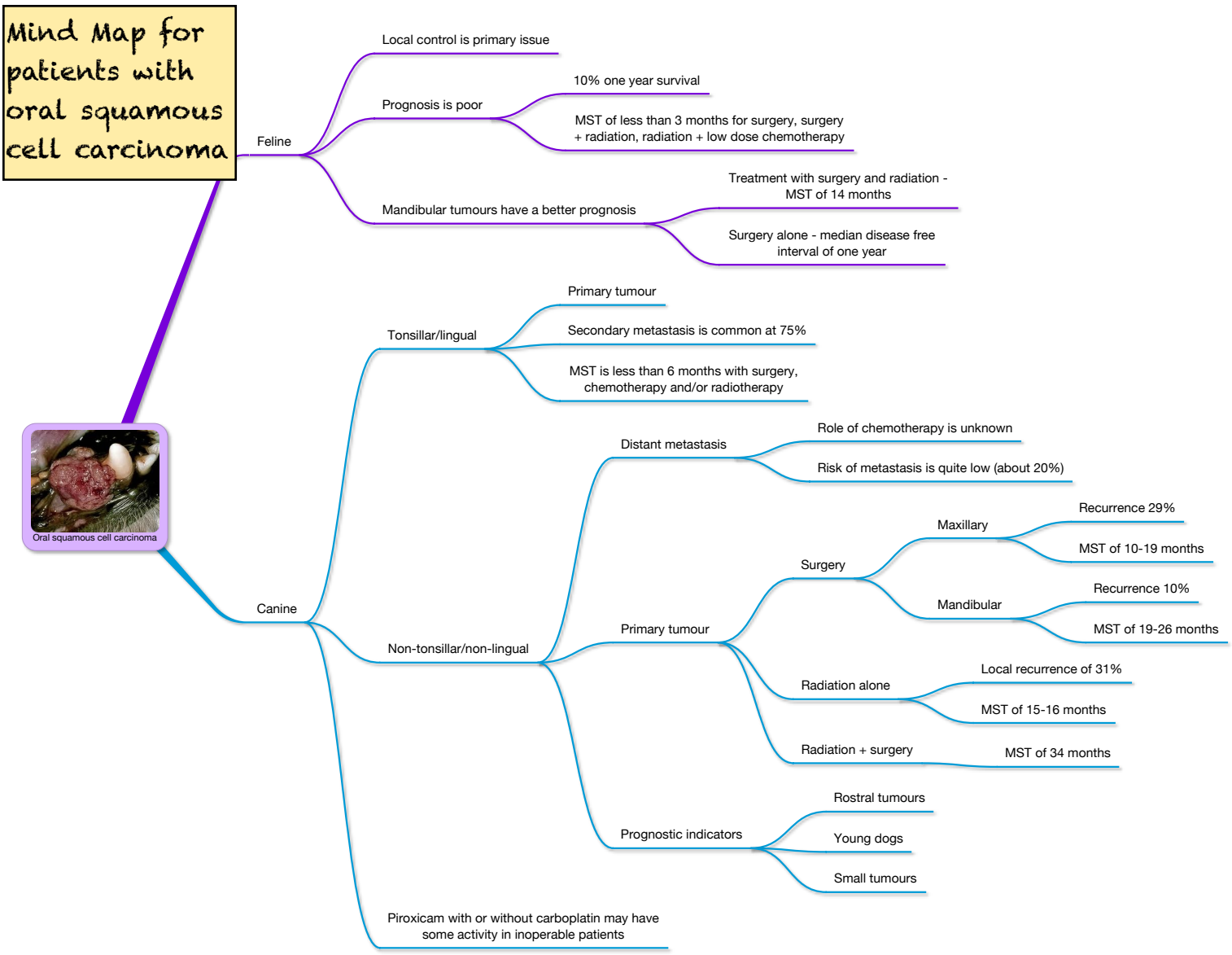
Southpaws, in collaboration with Royal Canin, will be hosting our fourth of five free seminars for Victorian veterinarians at the Mornington Golf Club on the 10th September 2013. This was a really popular lecture the last time we presented it with great feedback and reviews. We encourage you to attend. Attendees will be will be eligible for 1 Continuing Education Point for each of the topics. Please register at your earliest convenience to guarantee your place on the night.

We look forward to hearing from you. Please RSVP to casey.gill@royalcanin.com.au.

So Many Titles!! What do they mean?

While traveling around with the newest member of the Southpaws Team, Dr. Raelene Wouda (medical oncology/internal medicine) we came to realise that there is a lot of confusion between the different qualifications for vets have in Australia. We are providing a guide as we understand it to clear the air:

- ☑ **Externship** - short period of time spent as a visitor at another facility often as part of a training program.
- ☑ **Internship** - one year program at a facility which offers specific experience in a certain field (i.e. small animal medicine and surgery, surgery, oncology).
- ☑ **Residency** - two to three year program under specialists which is a prerequisite to taking specialty examinations and becoming a specialist.
- ☑ **Registrar** - usually signifies a person who has completed a residency and is actively preparing for specialty board examination. This person is usually still practicing with supervision.
- ☑ **Diplomate ACVS/ACVIM/ECVS/ECVIM,etc or Fellow ANZCVSC** - Someone who has passed specialty examination in the discipline of their training.
- ☑ **Specialist** - indicates that someone has completed a residency and passed specialty examination and has been recognised by the relevant governing body as having fulfilled all the requirements and paid necessary fees to be licensed as a specialist.



It's about **TIME...**

You rise from the sofa when searing pain explodes in your back. You collapse on the floor and you can't move your legs. Do you take Neurofen, drag yourself to bed, and see if you are better in the morning? No, you call an ambulance. At the emergency room, you are again given the choice: do you want to go home with pain relief and see if you are better in a few days or do you choose immediate imaging and decompressive surgery?

While not exactly analogous to the condition in humans (paralysis with disc disease is rare), this is the choice that owners of dogs with acute thoracolumbar disc extrusions face every day. Multiple studies have repeatedly shown that after presence or absence of deep pain sensation, the most important prognostic factor in dogs with acute spinal cord injury due to thoracolumbar disc rupture is *time to decompressive surgery*. Dogs that have acute disc ruptures with rapid decompressive surgery almost universally make a functional recovery as long as deep pain sensation is intact. Dogs having conservative management have a success rate of about 50% with recurrence of clinical signs likely.

Early intervention is even more important in dogs which have lost deep pain sensation. Up to 75% of dogs lacking deep pain sensation will make a functional recovery if decompressive surgery is done immediately.

Our vision at Southpaws is to make permanent paralysis after thoracolumbar disc rupture a thing of the past. This requires a team effort from pet owners, primary care vets and surgeons to rapidly recognise the signs, facilitate transfer to a surgical facility, accurately diagnose and localise the lesion and perform decompressive surgery. We are so confident in the success of early surgery in dogs with deep pain sensation intact that our results are guaranteed.

Apocrine Gland Anal Sac Adenocarcinoma (AGASAC)

Dr Raelene M. Wouda, BVSc(Hons) MANZCVSc(Int Med) BA(Hons), Medical Oncologist, Internist

The perianal area of dogs and cats contains several structures, including glands, from which tumours can arise.

Anatomy

The bilateral anal sacs are located on each side of the anus at the 4 o'clock and 8 o'clock positions, and in between the internal and external anal sphincters. These sacs are blind-ending ano-cutaneous diverticula, lined by stratified

squamous epithelium. The lumen of the anal sacs stores the odiferous secretions of distinct apocrine sweat glands embedded within the surrounding / adjacent connective tissue.

Incidence

Tumours of the anal sacs are uncommon in dogs and extremely rare in cats. Apocrine gland adenocarcinoma of the anal sacs represents only 17% of all perianal tumours, and 2% of all skin tumours, although AGASAC is the most common malignancy in the perianal region of older female dogs.

Clinical Signs

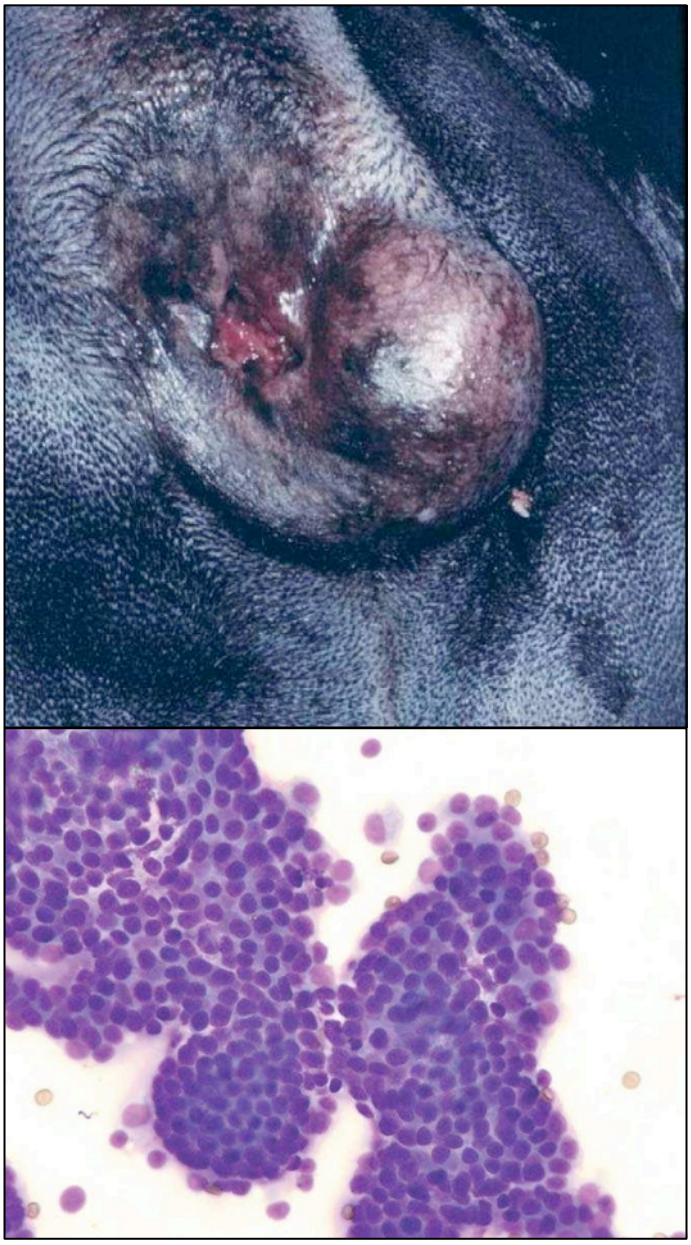
AGASAC is an incidental finding in approximately 50% of cases given that per rectum digital examination is now being routinely incorporated as part of the general physical examination. In the remaining approximately 50% of cases, clinical signs reflect the presence of a space-occupying mass in the perianal region, and might include perianal pain, "scooting", dyschezia, haematochezia, dysuria, stranguria, pollakiuria, and / or hindlimb lameness. Approximately 27% of patients are hypercalcaemic at the time of diagnosis and display additional clinical signs referable to the elevated blood calcium level, including anorexia, vomiting, polyuria, polydipsia, weakness, tremouring and even seizures.

Diagnosis

A presumptive diagnosis of AGASAC may be arrived at based on identification of an anal sac mass +/- clinical signs. In the majority of cases, a definitive diagnosis is then achieved via fine needle aspiration and cytologic evaluation. Occasionally, histopathologic evaluation of a core or surgical biopsy sample may be required to confirm the diagnosis.

Staging

Once a definitive diagnosis of AGASAC is obtained, additional diagnostic tests are recommended in order to establish the extent of the disease throughout the body and the patient's overall health status, prior to making decisions regarding further treatment. This staging process typically includes screening blood work (CBC / Chem.), urinalysis, three view thoracic radiographs, abdominal ultrasound, +/- fine needle aspirates of the regional lymph nodes for cytologic evaluation. An alternative to thoracic radiography and abdominal ultrasound is performing computed tomography (CT scan) of both body regions, which is certainly regarded as a more sensitive diagnostic modality, but does require brief general anaesthetic. These staging recommendations are based on the known behaviour of this particular tumour type. AGASAC tends to metastasise early to the regional lymph nodes, and then much later to distant sites, particularly the lungs, but also the liver and spleen. Regional lymph node metastases are present in 50-80% of cases at the time of initial diagnosis, but the presence of metastasis is not considered a poor prognostic factor, providing adequately aggressive therapeutic interventions are pursued.



Treatment

Therapeutic options of AGASAC include surgery, radiation therapy, chemotherapy, and various combinations thereof.

Surgery is almost always recommended in cases of AGASAC in order to remove the primary tumour(s) and alleviate the associated clinical signs. Unfortunately, given the anatomical complexity of the region and the manner in which the tumour tends to develop, it is almost impossible to achieve adequate microscopic margins. For this reason, adjunctive follow-up therapies may be considered, including radiation therapy and / or chemotherapy.

Radiation therapy may be incorporated into the management of ASAGAC in order to target local disease, either at the primary site and / or the regional lymph nodes. In theory, there are two approaches to radiation therapy; 1. Definitive (Curative-intent) radiation therapy, and 2. Palliative radiation therapy. Definitive radiation therapy protocols are considered in the post-operative microscopic disease setting, whereas palliative protocols are used in the setting of grossly measurable disease. Definitive radiation therapy has been demonstrated to be effective in controlling residual local disease and preventing local recurrence. Definitive radiation therapy as

a follow-up to surgery is typically commenced two weeks post-operatively, or whenever the surgery site has healed adequately. The currently recommended definitive radiation therapy protocol for AGASAC comprises 18 low dose (<3 Gy) fractions, administered on a daily basis (Monday through Friday) over four weeks. Palliative protocols are by definition less intensive and usually involve a somewhat higher dose (8-9 Gy) administered once every four weeks. The administration of each dose of radiation therapy does require brief general anaesthesia, but the procedure is typically of short duration and the patients usually recover extremely rapidly. These radiation protocols have been formulated in order to provide maximum clinical benefit, whilst minimising the potential adverse-effect(s). There are two types of adverse-effect(s) associated with radiation therapy; 1. Delayed, and 2. Acute. The potential delayed side-effect(s) of radiation therapy occur months to years after the course of radiation therapy is completed, and depend on the site irradiated, but may include permanent alopecia, leukotrichia and hyperpigmentation, rectal / colonic stricture(s), muscle contracture, osteonecrosis or boney sequestra, and even secondary tumour formation. Although permanent and difficult to address, the more serious of the later side-effect(s) are extremely rare. The acute side-effects are of greater concern in patients with AGASAC. These side-effect(s) occur during and immediately after the course of radiation therapy, and are the result of local inflammation. The skin and mucus membranes in the radiation field, including the colonic and ano-rectal mucosa and the perianal skin, become moderately to markedly erythematous and oedematous, with moist desquamation and ulceration, and this can certainly be associated with variable degrees of discomfort, dyschezia and diarrhoea. The acute side-effects of radiation therapy are transient, resolving within two to four weeks of completing the protocol, and in the interim they are managed with various combinations of parenteral and topical anti-inflammatories, analgesics and / or antibiotics. Having said this, however, the acute side-effect(s) of radiation therapy in the perianal region can be quite severe and the discomfort experienced by the patient quite intractable. If is for this reason that orthovoltage radiation therapy for AGASAC is not strongly advocated by Southpaws.

Chemotherapy is recommended in the post-operative setting for AGASAC, because this tumour type is known to behave aggressively, frequently recurring locally or metastasizing to distant sites. Chemotherapy has been demonstrated to delay local recurrence and should also inhibit the onset and progression of metastases. The conventional chemotherapy protocol advocated in the management of AGASAC involves the intravenous administration of carboplatin, once every three weeks, for a total of four or five doses. Alternative chemotherapeutic agents that have been investigated for AGASAC include cisplatin, mitoxantrone, doxorubicin, actinomycin-D and melphalan. These drugs are reasonable second or third-line agents for the medium to longer-term management of this disease.

The potential side-effect(s) of all conventional high-dose chemotherapeutic agents include gastrointestinal upset(s), which may manifest as inappetence, apparent nausea, vomiting and / or diarrhoea, as well as perhaps bone marrow suppression, which may manifest as non-specific "flu-like" symptoms or may not actually be clinically apparent but only evident on routine monitoring blood work. In general, less than 15-20% of veterinary patients undergoing chemotherapy experience side-effect(s), and most of these are self-limiting or readily managed at home with oral medications, including anti-emetics, gastrointestinal tract protectants, anti-diarrhoeals, and / or antibiotics. Less than 5-7% of veterinary patients experience severe side-effect(s) requiring hospitalization. Blood work is always checked before the administration of each dose of chemotherapy in order to monitor for drug tolerance and / or toxicity, and at the time of the anticipated neutrophil nadir. If an individual patient does experiences untenable side-effect(s) during chemotherapy, then dose reductions can be applied or alternative drugs trialled. If a patient develops progressive disease during the chemotherapy protocol then alternative drugs and protocol are discussed with the owners.

Toceranib phosphate **(Palladia™)** is a newer molecularly-targeted chemotherapeutic agent. It originally received FDA registration for the treatment of canine mast cell disease, but has subsequently demonstrated efficacy (grade IV evidence) in the treatment of several other tumour types, including AGASAC. Although Palladia™ can be associated with similar side-effect(s) to conventional chemotherapeutic agents, its advantage is that it is orally administered, hence requiring less veterinary visits and interventions. Monitoring, including blood work (CBC / Chem.), urinalysis (UPC) and blood pressure measurement, is still necessary, on a fortnightly basis initially, then monthly, then three to six monthly in the longer-term.

PROGNOSIS

It is difficult to accurately provide a prognosis for dogs with apocrine gland anal sac adenocarcinoma. The median survival time for dogs treated with excisional surgery, followed by chemotherapy +/- radiation therapy, varies between 18 to 31 months. Disease characteristic potentially identified as prognostic include stage, tumour size, distant metastases, hypercalcaemia, as well as certain cellular characteristics and molecular markers, but the relative impact of such prognostic factors in the setting of various treatment options is yet to be well-established by randomized, ideally blinded, clinically-controlled studies.

MONITORING

An ongoing monitoring schedule is recommended for AGASAC following completion of any treatment protocol, whether that includes surgery alone or surgery with adjuvant chemotherapy +/- radiation therapy. Monthly rechecks are recommended initially, and then these rechecks are extended out to three to six monthly. At these rechecks, a combination of a complete physical examination, blood work (including ionized calcium), urinalysis, abdominal ultrasound and thoracic radiographs may be performed, in order to monitor for recurrence and / or progression of disease. As mentioned previously, computed tomography (CT scan) may be considered as a more sensitive alternative to both thoracic radiography and abdominal ultrasound.