VETERINARY SOCIETY OF SURGICAL ONCOLOGY
NEWSLETTER

Issue 2 | 8th December, 2020 | E-mail: VSSONewsletter@gmail.com | www.vsso.org

THE MARGIN

November saw the release of two new podcast episodes. The first features a journal club session with Dr. Doug Thamm exploring papers related to osteosarcoma. The second episode features an interview with Dr. Joanne Tuohy and Dr. Brittany Ciepluch at Virginia Tech following their work to establish an integrated oncology centre in Roanoke, Virginia.

Virginia Tech Animal Cancer Care and Research Center

Podcasts are available at **vsso.org/podcast.**

VSSO PUB SESSIONS

Thanks to the work of Dr. Steven Baird and Dr. Bryden Stanley, we are happy to announce the introduction of a new format for member learning and engagement - the VSSO Pub Sessions! As most of you will know, the first event was held on the 15th of November via Zoom and explored brachycephalic obstructive airway syndrome. We had a maximum of 72 attendees, with a productive discussion over the duration of the session. Dr. Wustefeld-Janssens assisted with uploading a recording of the meeting to YouTube, with 290 views at the time of writing.

We are excited to discuss more topics and will be looking to host meetings on a quarterly basis with one member or invitee leading discussion initially. After the opening, members are encouraged to ask questions and to provide their input to the discussion.

Ultimately, these session will be most productive if members can generate a discourse to challenge preconceptions and highlight difficult areas or gaps in the literature.

Please send suggestions regarding topics to **VSSONewsletter@gmail.com**.

*Drink responsibly. Soft drinks more than acceptable.

VISION 2020/FORESIGHT 2021 POSTPONED

Thank you for your understanding while we decide how to move forward through these challenging times. After a tough decision, the VSSO executive have decided to postpone our conference until we are able travel and gather safely. We will keep you posted on this through our list-serve and the VSSO website.

If you are a registrant of our VSSO Vision 2020 conference, we have refunded or will be refunding all paid registrations. You will receive an email indicating that your refund has been processed on the credit card you originally paid with. If you have not received an email with your refund information or if you have any questions, please email Evoque.

Please do not hesitate to contact us if you have any questions.

We look forward to connecting with you soon on our VSSO 2022 Conference details.

Bill, Jolle and Sarah

CASE HIGHLIGHT - INVASIVE THYMOMA

DR. MICHELLE OBLAK

PRESENTATION

A 6-year-old spayed female Mastiff presented in June 2014 for pleural effusion, weight loss, and a reported mediastinal mass. According to the owners, the dog became progressively dyspneic in late May 2014. The dog presented to her family veterinarian and was found to be pyrexic and prescribed antibiotic therapy with no improvement noted. A thoracic ultrasound reported a 6 x 4 cm mediastinal mass. Cytologic evaluation of the pleural effusion on two separate occasions was consistent with a modified transudate with a lymphocytic infiltrate. Corticosteroid therapy and thoracocentesis were required 4 times prior to presentation with as much as 4 l of fluid retrieved.

On presentation, the dog was quiet and alert, with a body condition score of 2/6. The dog was mildly tachypneic with the remainder of her vital parameters within normal limits. Thoracic auscultation revealed absent lung sounds in the ventral lung fields bilaterally. Thoracic radiographs showed marked pleural effusion and likely secondary interstitial and alveolar lung patterns. Four litres of chylous effusion (~1 gal) were removed prior to CT. On CT, the dog had a cranial mediastinal mass identified, suspected to be associated with the thymus, and a 15 cm incompletely obstructive venous thrombus extending from the left external jugular vein to the cranial vena cava (Figure 1). Mild lymphadenopathy and mild pleural effusion was also observed, with no pulmonary metastasis noted.

FIGURE 1

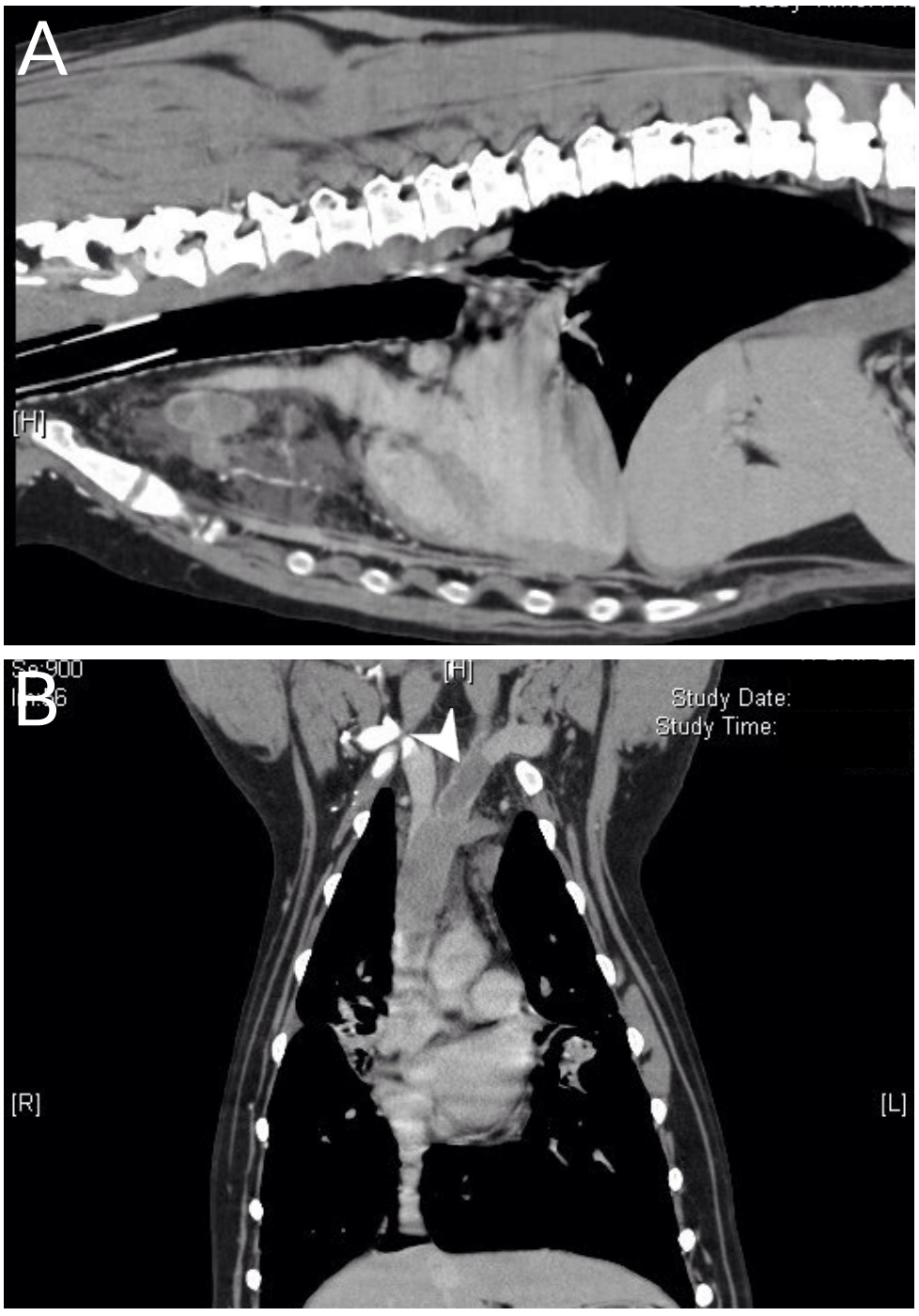


Figure 1. Coronal (A) and transverse (B) CTA reconstructions in a soft tissue window. A cranial mediastinal nodule is noted abutting the wall of the left brachiocephalic vein. A large (15 cm) incompletely obstructed venous thrombus is present within the left external jugular and cranial vena cava (white arrowhead).

CASE HIGHLIGHT - CONT.

THERAPY

The dog underwent a median sternotomy. A mass was present in the region of the cranial mediastinum, with the thrombus visualized extending cranially within the vena cava and into the jugular vein (Figure 2). Rummel tourniquets were placed on both jugular veins and the vena cava and the mass dissected free from the vena cava with a combination of blunt dissection and the Ligasure Precise. Following tightening of the Rummels, a cavotomy was performed and the thrombus removed as much as possible (Figure 3). Due to invasion into the caval wall, residual disease remained along the dorsal wall of the vena cava but blood flow could be visualized to return within both jugular veins and the vena cava following removal of the tourniquets. The pleural effusion completely resolved 158 days following surgery.

FIGURE 2

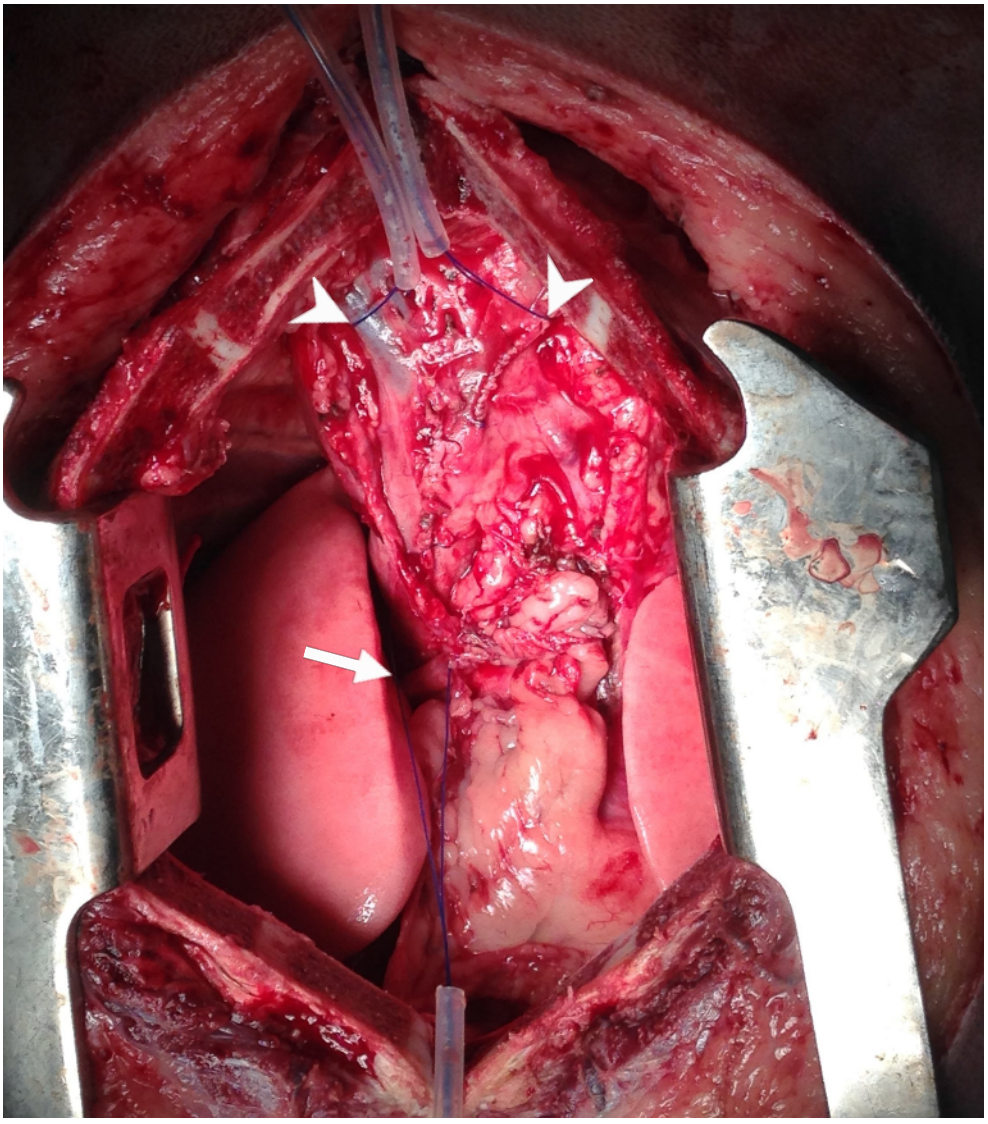


Figure 2. Intraoperative appearance of the mass with associated thrombus. The patient's head is to the top of the image and Rummel tourniquets are placed on both external jugular veins (white arrowheads) and the vena cava (white arrow).

OUTCOME

The disease remained stable until 548 days following chemotherapy (867 days after surgery) when a pulmonary nodule (3.3 cm) was found in the left caudal lung lobe. Cytology confirmed a metastatic malignant thymoma. Due to progressive disease, Palladia (toceranib) was started. Following Palladia for 42 days, radiographs showed the first lung nodule to be stable to improved but a second nodule (2 cm) was observed and a third nodule was identified not long after (70 days on Palladia, 957 days since surgery). Palladia was continued and low-dose metronomic cyclophosphamide added, which was then discontinued when disease continued to progress.

The dog remained clinically stable on Palladia but showed further disease progression (405 days Palladia, 1292 surgery). The dog developed pleural effusion (1379 days following palladia, 2265 after surgery) and began to experience increased respiratory effort. Due to clinical decline the owner elected for euthanasia. Overall survival time from surgery for this dog was 2278 days (6.2 years) despite an initial tumor progression at 265 days.

Michelle Oblak, DVM DVSc DACVS-SA, ACVS Fellow - Surgical Oncology. Dr. Oblak is a surgeon at the University of Guelph, Ontario.

FIGURE 3

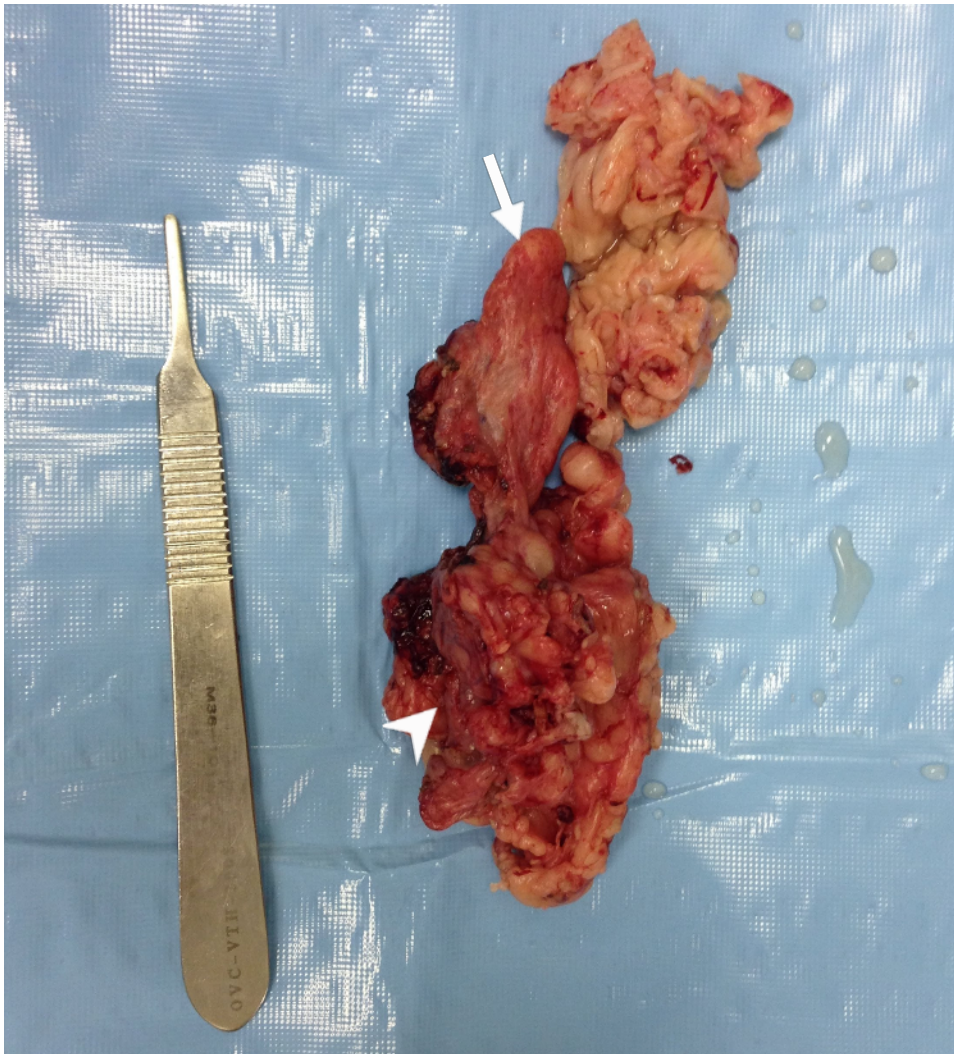


Figure 3. Resected mass with associated thrombus. The mass is noted at the bottom of the image (white arrowhead) with the thrombus at the top (white arrow). A scalpel handle is placed for scale.

ANNOUNCEMENTS

Surgical oncology fellowship positions are open for applicants. The deadline for application is the 1st of February.

Colorado State University

Contact: Dr. Deanna Worley

University of Florida

Contact: Dr. Carlos Souza

The Ohio State University

Contact: Dr. Laura Selmic

Dr. Brandan Wustefeld-Janssens will be starting a tenure-track position at Colorado State University in December. Congratulations!

Dr. Nick Bacon and Dr. Carlos Souza have both married during lockdown (although not to each other). Congratulations to them and their respective partners!

TRANSLATION

Pulmonary Metastasectomy in Colorectal Cancer: updated analysis of 93 randomized patients - control survival is much better than previously assumed. Milosevic M et al. Colorectal Dis. 2020; 22: doi: 10/1111/codi.15113.

Summary: Pulmonary metastasectomy has been commonly recommended in humans with colorectal carcinoma based on an expectation of <5% survival at 5 years in untreated patients.

This study evaluated outcomes in adult humans who underwent resection of colorectal carcinoma and were found to have lung metastasis. Patients were excluded if any other metastases aside from treated liver metastasis were identified. Participants were randomized to either undergo pulmonary metastasectomy or observation. Power analysis indicated 300 patients would be required to identify a 10% difference in mortality at 3 years as a noninferiority trial.

Ninety-three patients were enrolled before the trial was closed due to poor recruitment. Treatment groups were balanced regarding minimization variables. There were no significant differences in the intensity of other treatments.

Sixty-three deaths were recorded (33 control, 30 metastasectomy). Median survival after metastasectomy was 3.5 years, compared to 3.8 years for controls. 5-year survival rates were not statistically different (36.4% for metastasectomy and 29.6% for controls).

Comment: While this study was not powered as planned due to slow enrollment, both groups showed comparable survival to previous reports of treated patients. Patients not treated for pulmonary oligometastasis had been often assumed to have a 5-year survival rate of <5%. This study supports that large, randomized studies are needed before efficacy is determined. Within retrospective studies, historical control survival figures should be carefully assessed.

PERSPECTIVE - A STREAM RUNS THROUGH IT

DR. CHARLES KUNTZ

Veterinary specialists are a FIRST WORLD problem.

We, as veterinary specialists, encourage, request and even demand that primary care vets offer referral to owners of pets with serious medical and surgical problems. However, based on my very rough estimation (using extensive research acquired in 30 minutes on Google), 5.5 BILLION people on this planet don't have access to veterinary specialists anywhere in their country. Millions more don't have geographic access within a reasonable distance and even more who do have access can't afford referral.

SouthpawsVet, the YouTube channel, was started in 2009 primarily as a marketing initiative. Live-streaming was not possible because of technical limitations. My first attempt at live-streaming in 2011 was through a GoTo meeting with the primary care vet and a few others watching a spinal surgery. I had no microphone and my nurse was typing updates on the Chat, twitter style. She was not the best typist and reported as I removed a large piece of dick (*sic*)from the spinal canal. There had to be a better way…

Over the subsequent 7-8 years, We recorded, edited, added voiceovers and posted about 110 surgical videos. We had about 4500 subscribers by that time. We were perusing features on YouTube when we discovered that if we had over 1000 subscribers, we could put in an application to live-stream. This was granted, but we had no idea if anyone would watch.

The first time we streamed on YouTube, suddenly and instantaneously, we had 17 viewers watching live. We had not announced ahead of time. People just showed up. Suddenly we realised the potential of this medium. We could influence and inspire primary care vets all over the world who do not have access to referral to specialists.

It raised an interesting phenomenon. As specialists, we spent our whole careers convincing vets that they lacked the skill and equipment to perform advanced surgeries and that they needed to refer to us. We failed to consider the hundreds of thousands of vets who serve billions of people who don't have the option for referral. This medium allows us to help a far greater number of patients than our "bricks and mortar" veterinary practice.

Benefits that we see to our YouTube Channel are that many vets in primary care practice internationally haven't been able to observe specialists operating ever - not even in vet school. Many more haven't been able to since graduation. The hope is that by observing proper surgical technique and hearing the thought processes as we operate, vets will aspire to improve operative technique and perioperative care.

Our practice benefits as well. When we are streaming, surgeons verbalise thoughts that might have been left unsaid or mumbled into a surgical mask. That means that our residents, interns, visiting students and nurses have a much better understanding of what is going through the surgeons' heads as they operate. It also makes team members feel that they are part of something bigger. In addition, I believe that it makes me a better surgeon. When I verbalise my thought processes, I often pick up potential pitfalls before I encounter them allowing me to avoid catastrophic errors. People often ask if we feel additional pressure when streaming. I always give the warning that if things go pear-shaped, I will interrupt the stream. In the 3 cases when that has happened, I have always logged-on again later to give an "epilogue" of what transpired.

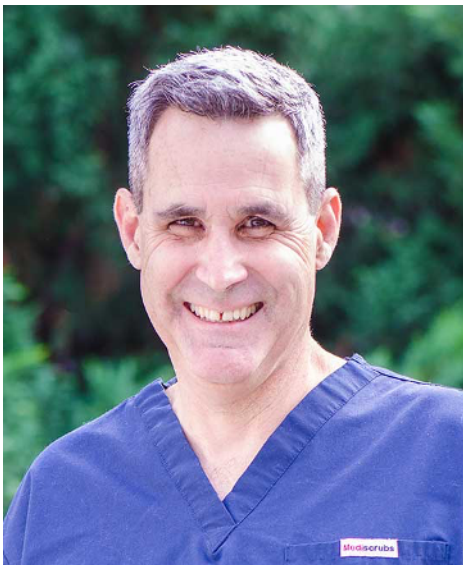
In the past 2 years, we have streamed about 300 surgeries. We have 20,000 subscribers and about 2.8 million views. When we click "go live" we usually have 40-50 regular watchers log in. During one stream, we counted viewers from 30 different countries. An added benefit is that during closure, viewers are graced with my repertoire of dad-jokes.

Hey doctor, can you take a look at this mole on my shoulder?

Doctor: I'm a dermatologist, not a veterinarian!

This is Charles Kuntz and I am one of the surgeons at Southpaws.

Charles Kuntz, DVM, MS, MACVSc, DACVS, ACVS Founding Fellow - Surgical Oncology. Dr. Kuntz is a surgeon at Southpaws Specialty, Emergency and Referral Hospital in Melbourne, Australia.



PERSPECTIVE - THE VALUE OF SHARED DECISION MAKING

DR. ROD PAGE

Coordinated evaluation of patients from multiple diagnostic and therapeutic perspectives is advantageous in veterinary oncology as standardized formal treatment guidelines have not been established. At the Flint Animal Cancer Center, clinical decisions such as therapeutic combinations and sequencing and decision points for outcome assessment are thoroughly discussed among multiple specialists at the initial evaluation and presented collectively to the owner. This shared perspective limits individual clinician bias and provides an opportunity to deliver better service and better patient care.

Although research on the impact of multidisciplinary clinics to improve outcomes has not been conducted in veterinary oncology, there is sufficient evidence from human oncology to support this model of patient care. Treatment plans developed at multidisciplinary clinics are modified in as many as 35% of patients referred from community practices.1 For example, management changes are frequently considered following thorough pathological review that may alter the tumor grade or identify a unique prognostic biomarker and advanced imaging evaluations where metastatic lesions, vascular invasion, or entrapment may have not been visible previously. In such instances, surgical approaches may be modified or eliminated. Improvements in patient outcomes have been documented in multiple tumor types resulting from this clinical care model.

It has been our experience that the team approach provides a better client experience and improves customer satisfaction. Scheduling multiple specialty appointments with different services or even providers can create treatment delays inducing anxiety for clients and their treatment teams. Likewise, emergencies are often managed more effectively if a multidisciplinary oncology service is the focal point for transfer rather than confusion about a specific specialty service. Veterinary technicians and patient coordinators in multidisciplinary care oncology services are essential members of the team and serve as a coordination hub of information for clients regarding treatment communication, emotional support, and hospital logistics.

Multidisciplinary care in veterinary oncology has a profoundly constructive effect on the education of veterinary students and specialists-in-training. Case presentation rounds include students, technical staff, residents, surgical fellows and faculty in each specialty. A robust discussion of treatment and supportive care alternatives establishes a coordinated understanding of options available for cancer patients, which cannot be as easily appreciated without diverse input. As the treatment plan evolves, a multidisciplinary team approach is equally important for protocol adjustments, additional diagnostics, and the management of supportive care and adverse events.

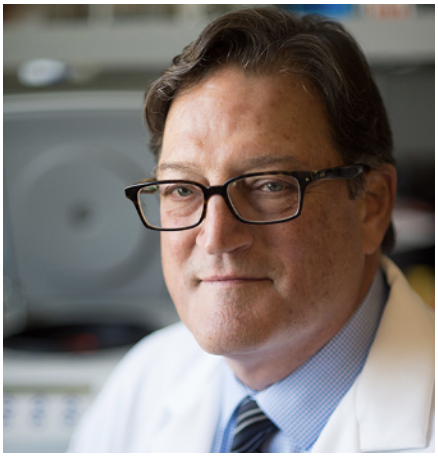
Further, in my experience, patients evaluated within a multidisciplinary service are more often reviewed for enrollment in existing clinical trials. This is the result of in-depth discussion fostered by our comprehensive model. Clinical trials are more likely to be considered when varied perspectives are presented.

Multidisciplinary cancer care is not without substantial challenges. It is necessary to staff sufficiently for such a unit, including highly-trained specialists dedicated to advanced cancer management. It may not be financially feasible to have surgeons devoted to patients with cancer only. However, the marketing of coordinated advanced cancer management can provide some potential revenue advantages. Detailed schedule and operational coordination are critical and because of the size of the team, attention to clear and complete communication within the team and with the client is critical to avoid confusion.

As a result of the above advantages, the multidisciplinary oncology service at the Flint Animal Cancer Center creates a positive and energizing culture; an ethos that was established many years ago. Our clients, including referring veterinarians, recognize the added value. During the pandemic-precipitated disruption of clinical operations, we have continued our multidisciplinary approach with adjustments as necessary in consideration of teaching and service restrictions. In fact, moving from a physical to a virtual multidisciplinary model may decrease geographic disparities to access, and could be considered an opportunity for a telemedicine-based multidisciplinary program. Some current adjustments will likely find a role in our future concept of a multidisciplinary service model.

1. Berardi R, Morgese F, Rinaldi S, et al. Benefits and Limitations of a Multidisciplinary Approach in Cancer Patient Management. *Cancer Management and Research*2020:12 9363–9374

Rod Page, DVM, MS, DACVIM (Oncology & SAIM). Dr. Page is a Professor of Oncology at Colorado State University and the director of the Flint Animal Cancer Center.



SURGICAL ONCOLOGY PROSPECTIVE CLINICAL STUDIES

Acellular Fish Skin as a Free Xenograft for Immediate Wound Coverage Following Wide Surgical Tumor Excision in Dogs — **Open**

University of Florida

Funded by: Intramural grant at University of Florida

Dr. Elizabeth Maxwell. E-mail: emaxwell@ufl.edu

Evaluation of imaging and intraoperative techniques for the identification of sentinel lymph nodes in dogs with oral tumours — **Open**

University of Guelph (lead; multiple sites)

Funded by: Intramural grant at University of Guelph

Dr. Michelle Oblak. E-mail: moblak@uoguelph.ca

Optical Coherence Tomography for Surgical Margin Assessment of Skin and Subcutaneous Tumors — **Open**

The Ohio State University

Funded by: The American Kennel Club Canine Health Foundation

Dr. Laura Selmic. E-mail: selmic.1@osu.edu

Prospective Evaluation of Thyroid Carcinoma Lymph Node Metastasis — **Open**

University of Missouri (lead; multiple sites)

Funded by: Intramural grant at University of Missouri

Dr. Owen Skinner E-mail: skinnero@missouri.edu

Tell us about your prospective studies! Publicising your research to colleagues within the field may allow increased enrollment or facilitate collaboration. Email us at VSSONewsletter@gmail.com to add your study or trial.

Unless otherwise stated, studies are not endorsed or evaluated by the VSSO.

VSSO RETROSPECTIVE STUDIES

Outcomes and prognostic factors associated with surgical management of primary intramuscular hemangiosarcoma in dogs

Dr. Ronan Mullins, University College Dublin. E-mail: ronan.mullins@ucd.ie

Outcome in dogs with biliary carcinoma

Dr. Vincent Wavreille, University of Zurich. E-mail: vwavreille@gmail.com

A Retrospective Comparison of Surgery and Surgery-Chemotherapy for Management of Cutaneous and Subcutaneous Grade III Soft Tissue Sarcomas in Dogs

Dr. Julius Liptak, Alta Vista Animal Hospital. E-mail: animalcancersurgeon@icloud.com

Canine Ischiatic Tuberosity Soft Tissue Sarcoma

Dr. Sarah Boston, VCA Canada. E-mail: drsarahboston@gmail.com

To submit a study proposal, go to https://vsso.org/research-trials.