



CAPITAL CITY SPECIALTY & EMERGENCY ANIMAL HOSPITAL

SURGERY NEWSLETTER

NOVEMBER 2024



Live Streaming of Surgeries

When we designed Capital City Specialty & Emergency Animal Hospital, we put a lot of thought into the functionality and work flow of the design and build, and incorporated features which aligned with our core values. One of these features was cameras within the handles for our surgery lights combined with 86" wall mounted screens in each of our five operating rooms. We had three aims for these cameras:

1. View surgeries on the wall mounted screens so our staff and visitors could have a better view and understanding of the surgeries being performed;
2. Save surgery videos to our PACS;
3. Live stream videos of our surgeries to a social media platform.



The first aim was quickly achieved but the second and third aims have taken longer. Thanks to Jessica, one of our VAs, and her partner, Nick of AR12 Gaming, our live streaming is up and working. You can check out the live streamed videos at www.youtube.com/@CapCityVetSurgery/streams, and the edited videos at www.youtube.com/@CapCityVetSurgery/videos. These are constantly being updated, so subscribe if you are interested in following us!

SURGERY@CAPCITYVET.COM - (613) 244-7387



CASE OF THE MONTH - NASOPHARYNGEAL STENOSIS IN A CAT

Dr. Phil Larose, DACVS

Daisy, a 2-year-old FS DSH cat presented to Capital City Specialty & Emergency Animal Hospital surgery service for stridorous breathing through her nose yet predominantly breathing through her mouth since being a kitten.

Her family veterinarian suspected choanal atresia or another congenital upper airway anomaly based on upper airway and oropharyngeal examination performed during her spay surgery.

Daisy underwent a sedated oropharyngeal and laryngeal examination with no obvious anomalies noted. Retroflex nasopharyngoscopy was performed which revealed a severe nasopharyngeal stenosis (NPS) (Figure 1).

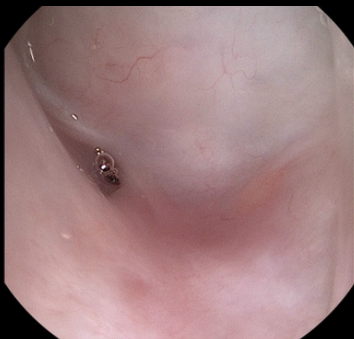


Figure 1: Nasopharyngeal stenosis as viewed during retroflex nasopharyngoscopy. Note the small orifice leading to the choana and nasal cavity. The nasopharynx is predominantly obstructed by this membrane.

She then underwent CT scan which allowed to better characterize the location, size, and extent of her nasopharyngeal stenosis (Figure 2).

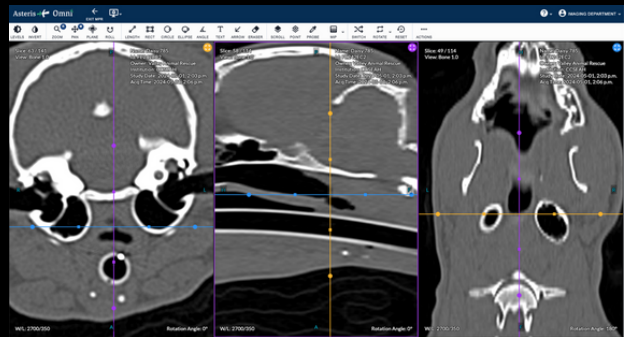


Figure 2: Multiplanar reconstruction of Daisy's head CT scan showing the acute narrowing of her nasopharynx at the site of the aberrant membrane leading to nasopharyngeal stenosis.

NPS is a rare cause of upper respiratory tract obstruction in cats. This condition has been described in a little over 30 cats in the veterinary literature. NPS can occur secondary to upper airway infection, inflammation, trauma, ulceration or arise from a congenital anomaly. In these cats, a thin membrane will partially (NPS) or fully (imperforate nasopharynx) obstruct the nasopharynx. This leads to respiratory stridor, open mouth breathing and dyspnea.



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Prior to the advent of interventional radiology and endoscopic techniques, ventral rhinotomy and longitudinal ventral soft palate incision for resection of the stenosis and reconstruction of the nasopharynx was the main treatment option. Recently, balloon dilation has become the treatment of choice. After careful planning, Daisy underwent balloon dilation using fluoroscopic and endoscopic guidance which resulted in resolution of the stenosis (Figures 3 & 4).



Figure 4: Appearance of the nasopharynx following balloon distension of the nasopharyngeal stenosis. The thin membrane has been completely removed and the choana and nasal turbinates cranially are visible.

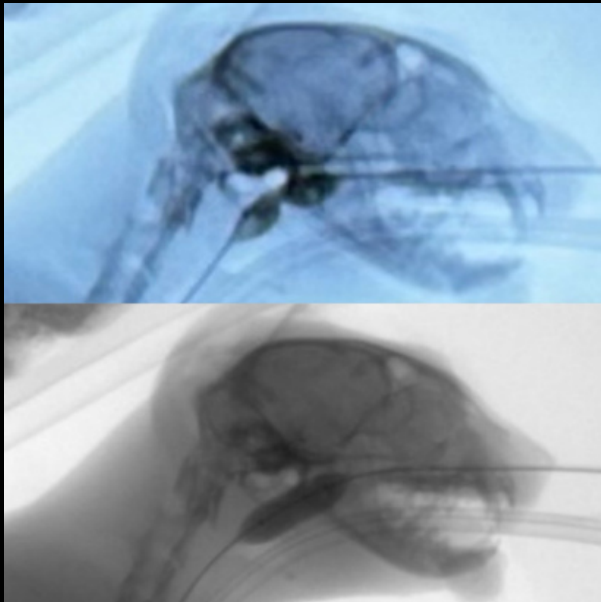


Figure 3: Note the waist in the balloon during early distention of the balloon catheter (top). The waist indicates the site of nasopharyngeal stenosis. Below, the balloon is fully distended, and the waist is no longer present as the stricture has been completely eliminated from the nasopharynx.

The main risk with balloon dilation is recurrence of NPS. In these patients, a second balloon dilation procedure may be followed by temporary or permanent nasopharyngeal stenting. Antifibrotic drugs such as mitomycin C and corticosteroids (prednisolone) may be beneficial in decreasing the risks of stricture recurrence.

Immediately following her procedure, Daisy was predominantly breathing through her nose and has been doing well since. Close monitoring of recurrent clinical signs was advised, in the first few months following balloon dilation of NPS.



DID YOU KNOW

The Options Available for Fracture Repair?

There are often multiple options to successfully repair a fracture. Although each fracture we see is unique in its morphology, location and soft tissue damage, there are common concepts to optimize our chance of success. Furthermore, there are few fractures that require limb amputation (given no financial limitations) with repair options available.

Keys for a successful fracture repair include functional alignment of the bone, a strong enough repair to allow for bone formation and maintaining vascular supply. In juvenile patients we must also consider growth plate location and future growth potential.

A repair option often overlooked is closed reduction with external coaptation. This is best performed for transverse fractures with interdigitation, mid-diaphyseal, in bones below the elbow and stifle, minimally displaced (or can be closed reduced) and in a patient with great healing potential (young patients and patients that will heal quickly). An exception is distal diaphyseal radial fractures in small breeds that have about a 90% failure rate with external coaptation. The limitation of external coaptation includes immobility of joints, bandage changes and potential bandage disease.

In the ideal situation, external coaptation should be performed under heavy sedation or anesthesia. It is often performed in the radiology room to allow assessment of reduction. After splint or cast placement, radiographs should be repeated to confirm reduction was maintained during bandage placement. Radiographs are often repeated at the first bandage change to confirm continued reduction. Remember to balance the amount of padding in a cast or splint. The more padding you place the less stable the splint/cast. The less padding you place the more likely there could be bandage sores.

If you have a case that you think would be a good candidate for fracture repair with external coaptation, please reach out to the surgery service (surgery@capcityvet.com or call us at 613-244-7387) and we can help instruct you what type of bandage to place.

Surgical fixation has the benefit of allowing early mobility and providing more stability than external coaptation. Cap City is fortunate to be able to offer bone plate and screws, inter-locking nail, external fixator (linear and circular) and pinning repairs. When appropriate, minimally invasive fracture repair can be performed under fluoroscopic guidance.



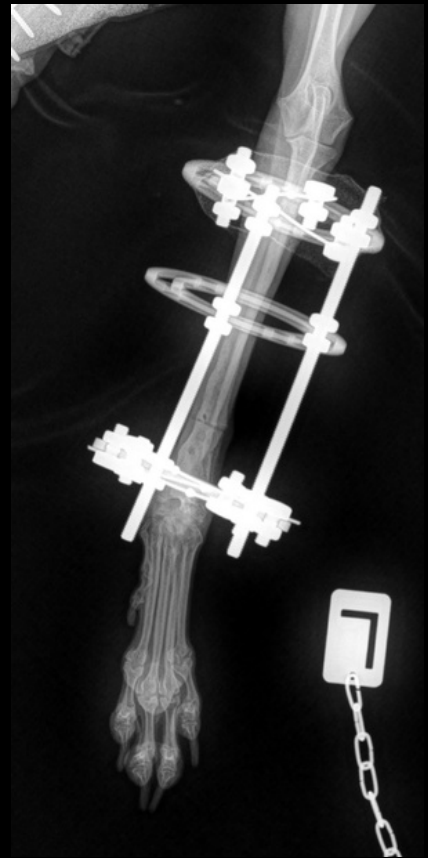
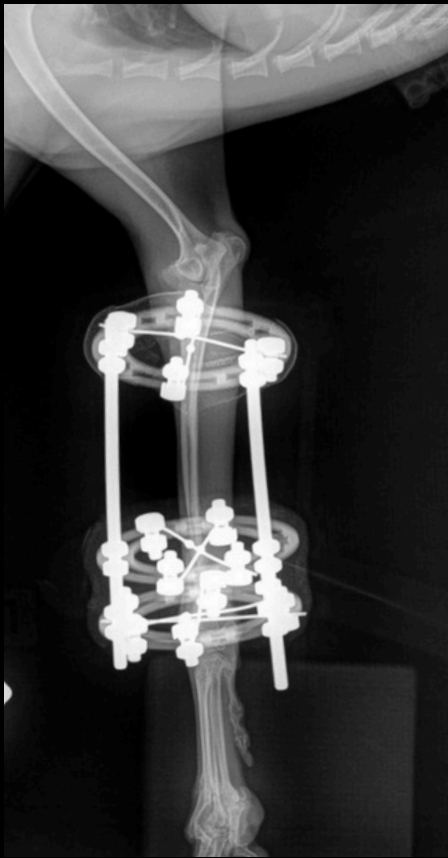
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DID YOU KNOW

The Options Available for Fracture Repair?

With five specialist surgeons who can perform fracture repairs, we can typically get your patients in for same day or next day fracture repair. Please reach out to us if you would like to discuss potential referral. You can contact us at:

- surgery@capcityvet.com or 613-244-7387 during the week
- Dr. Jeff Biskup at jbiskup@capcityvet.com for weekend and Monday cases
- Dr. Phil Larose at plarose@capcityvet.com for cases later in the week



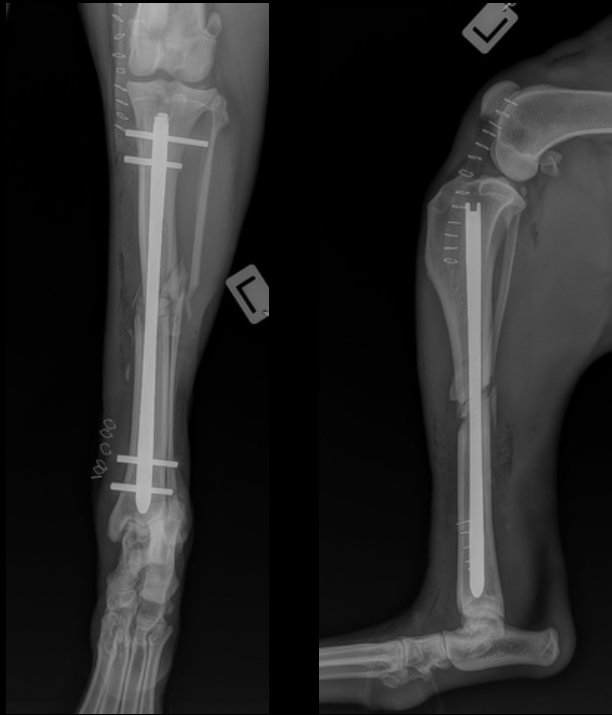
External fixators have three unique advantages over other repairs: they can secure very small segments of bone with tensioned wires, they can be adjusted after surgery (lengthening a bone or weakening the repair to encourage healing) and all implants are removed once healed (without requiring anesthesia). External fixators usually require less care than casting/splinting but more care than internal repairs.

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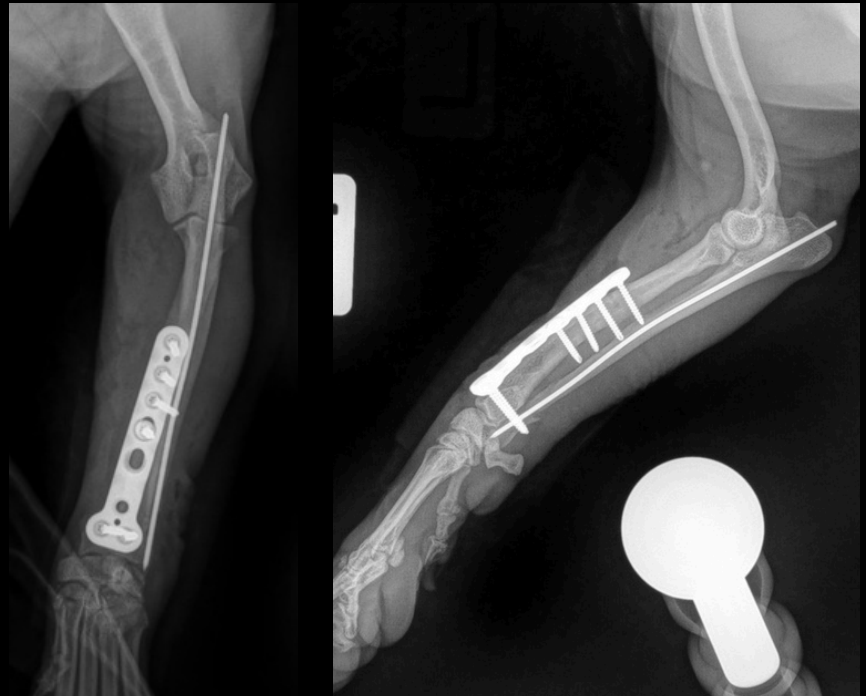
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The Options Available for Fracture Repair?



Interlocking nail fixation (ILN) is a strong repair that can be placed in a biologically friendly manner (not making an incision over the fracture and disrupting the fracture hematoma). ILN can only be placed in bones where the nail can be introduced through a non-articular aspect of the joint (humerus, femur and tibia).

Bone plate and screws fixation is the most common type of internal fixation for fracture repair. Bone plate fixation continues to develop with variable angle locking screws, bone/fracture specific implants and minimally invasive placement of plates. There is now a wider range of implant sizes for the smallest patients (1.1 mm) to the largest (4.5 mm)





MEET OUR TEAM

Sarah

Surgery Veterinary Assistant

My name is Sarah, and I am the Lead Surgical Veterinary Assistant here at Capital City Specialty & Emergency Animal Hospital.

Much of what I do is behind the scenes, with my primary role being in the sterilization area; cleaning and processing surgical instruments, ensuring all of our equipment is fully operational and maintaining an optimum level of inventory supplies. I also perform aseptic preparation and draping of our surgical patients, as well as assist our surgeons in the operating rooms (ORs). I work very closely with our Lead Surgical Technician to coordinate our day to ensure maximum efficiency of our teams.

I have been in the veterinary field since my high school co-op, and knew immediately this was where I was supposed to be. After nearly 20 years of working in both ICU and emergency departments, I moved to surgery and have been at Cap City since the first day. My role has elevated my experience to a whole new level. I couldn't be more proud to work alongside such a hardworking, talented and caring team.



I am passionate about organization, and one of my greatest accomplishments is being part of the initial set up and organization of the ORs of our brand new facility. I take great pride in ensuring our surgical department is well equipped and ready to anticipate all of our surgeons needs and requirements.

Outside of work, I share a cozy home with my partner, Alex, and our beautiful and very active 5-year-old daughter, Amelia.



CAPITAL CITY SPECIALTY & EMERGENCY ANIMAL HOSPITAL

REFERRALS

As the largest specialty hospital in the National Capital region with five small animal surgery specialists, we are able to offer the complete range of surgeries to our referring veterinarians and owners. From TPLOs to total hip replacements, from basic to complex fractures and luxations repairs, from hemilaminectomies for dogs with IVDD to brain tumor resections, from cystotomies to portosystemic shunt attenuations, from laparoscopic spays, gastropexies and cholecystectomies to

subcutaneous ureteral by-pass and thoracoscopic lung lobectomies, and from cutaneous tumor resections to limb-sparing surgery and oral and maxillofacial tumor resections, we do it all. Not only do we do it all, but we do it all on weekdays for elective and emergency cases and after hours on weekends for emergency surgeries. We also have 24/7 support from our emergency team as well as specialists in anesthesia, emergency and critical care, and internal medicine.

To refer cases to our surgeons, go to our website at <https://capcityvet.com/surgery-referral-form/>, or call or email Jenn at (613) 244-7387 or surgery@capcityvet.com.



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