



LONG ISLAND
VETERINARY SPECIALISTS
24 HOUR EMERGENCY ANIMAL CARE



Long Island Veterinary Specialists

LIVS IN PLAIN VIEW



**Long Island
Veterinary Specialists**

*Where You Refer Your Patient First
Makes All The Difference*

INSIDE THIS ISSUE

MAR/APR 2022
VOLUME 15 - ISSUE 2

1 Pelvic Fractures in Dogs and Cats

*Catherine A. Loughin, DVM,
DACVS, DACCT*

2 A Note from the Editor

*Leonard J. Marino, MD,
FAAP, LVT*

10 What's Your Diagnosis?

*John Sapienza, DVM,
DACVO*

Pelvic Fractures in Dogs and Cats

Catherine A. Loughin, DVM, DACVS, DACCT



Pelvic fractures comprise approximately 25% of all fractures seen by small animal veterinarians. They are most often caused by trauma but can also be seen in racing Greyhounds as a stress fracture, or as pathologic fractures in cases of cancer. The pelvis is composed of the paired ilium, the ischium and the pubis. At the point the 3 bones fuse together is the acetabulum, and the ilium articulates with the sacrum. The weight bearing axis of the pelvis is the sacroiliac joint, the ilium and the acetabulum. This is also known as the "box". Due to this box-like shape any trauma sufficient to produce a fracture will always cause more than one. Due to the pubis and ischium being inside the "box", fractures in these areas are less likely to need surgical stabilization.

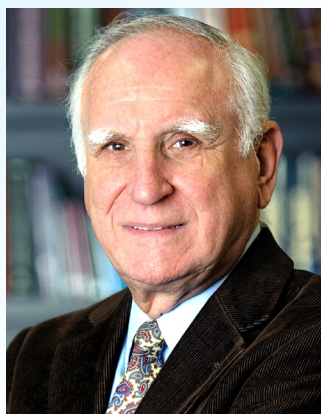
Because severe trauma is the primary cause of most pelvic fractures, concurrent injuries are frequent.

Thoracic trauma will occur in approximately 50% of patients, and thoracic radiographs should be performed to assess for rib fractures, pneumothorax, pulmonary contusions and pleural effusion. About 39% will have trauma to their urinary tracts, so a contrast study (contrast cystourethrogram or intravenous pyelogram) may be indicated to assess for ureteral, bladder and urethral tears. An abdominal ultrasound may be necessary to assess for other abdominal organ damage from trauma. About 11% will have peripheral nerve damage, but in many cases this is temporary and owners need to be aware it may take several weeks to months to resolve. Rectal perforation is less frequent, but a careful digital rectal exam should be performed and if suspected, a possible colonogram.

It is important to assess the stability of the patient before radiographs are performed. Many patients with trauma will present in shock and will need intravenous fluid therapy immediately. Monitor EKG for arrhythmias. Analgesia is the next priority, and most patients will need narcotics initially (i.e. hydromorphone, fentanyl CRI, etc). Nonsteroidal anti-inflammatory drugs should be used with caution in patients since many will have signs of organ trauma (liver and/or kidney enzyme elevation). Stabilization of the patient may take a couple of days, which may become an issue if surgical repair is recommended. Fractured pelvic bones are best stabilized within 48–72 hours after the injury occurs.

Continued on Page 6

A NOTE FROM THE EDITOR



The warmer summer weather is enticing us to participate in outdoor activities, camping, boating, biking, BBQing and more. Our pets will soon be outside in the heat and need adequate water and protection from blistering hot pavement. Mother's Day chocolates that pets can get at can cause serious illness and intestinal upsets from grilled scraps will cause considerable distress. Our emergency service will start seeing them in the near future.

Food supplies are higher in price as inflation has descended upon us and a viral illness (A(H5N1)) has caused the sacrifice of millions of egg layers and broiler chickens adding to the problem. The risk to humans is low (but mortality is 53%); this version originated in China in 1996, resurfaced in 2003, hit the US and Canada in 2014-15 and now again in 2022. Only one death (in the UK) so far and none in the US this year.

A few years ago, a seven-year-old sea lion underwent experimental brain surgery that involved transplanting healthy pig neurons into his damaged hippocampus. Now, since the treatment, he is seizure-free, says a neuroscientist at the University of California, San Francisco, who led the effort. His appetite and weight have returned to normal, he's more social, and he's learning new things, like how to tell left from right.

Researchers say the procedure paves the way for a new strategy to treat epilepsy, but it will likely be years before the technique is attempted in people. The cells received are meant to suppress the abnormal brain activity that gives rise to seizures. Many current epilepsy drugs work in the same way, but they can cause a host of unpleasant and mood-altering side effects because they affect the whole brain. Hopefully, if the seizures do not return, this may alter epilepsy management.

The idea that food can drive biological processes by interacting with the genome sounds astonishing, but not for bees! One need look no further than a beehive to find a proven and perfect example of how this happens. Worker bees labor nonstop, are sterile, and live only a few weeks. The queen bee, sitting deep inside the hive, has a life span that lasts for years and a fecundity so potent she gives birth to an entire colony! Yet, worker and queen bees are genetically identical organisms. They become two different life forms because of the food they eat. The queen bee feasts on royal jelly, worker bees feed on nectar and pollen. Both foods provide energy, but royal jelly has an extra feature: its nutrients can unlock the genetic instructions to create the anatomy and physiology of a queen bee. Seems like we could use some "royal jelly" in developed countries where the reproductive rate is far below the replacement rate.

On April 13th, 2022, LIVS' Hospital Supervisor Michael Plante visited Hauppauge Middle School to participate in the 8th graders' Career Day. Michael was joined by 30 other working professionals from a wide variety of careers. Over 100 students participated in the event and rotated through 5 different twenty-minute sessions picking careers in which they might be interested.

Long Island Veterinary Specialists was proud to have "Big Mike" represent LIVS in teaching the 8th graders, as well as their teachers about the ever growing and innovative field of Veterinary Medicine.

During his presentation Michael spoke to the students about why he decided to work in the veterinary field, what types of jobs are offered, the education needed and the outlook of Veterinary Medicine. He was able to tell countless stories in his 20 plus years of service in the field and spoke to the students about the Pros and Cons of the veterinary field.

Students and their teachers were excited to see LIVS' canine training manikin in operation. "Diesel" was used to demonstrate IV catheter placement, endotracheal tube intubation, tension pneumothorax decompression as well as many other useful training modules.

Michael Plante described his chosen field saying.... "Educating young people and newer veterinarians is my passion. I love being able to use my 24 years of experience to teach students from High School, Vet Tech school, and Veterinary School and to educate the public on what veterinary medicine is."

Continued on Page 3

A Note from the Editor

Continued from Page 2

He has been in the veterinary field since 1998 when he started as a kennel assistant at a general small animal hospital in Oakdale. His love for the animals and passion for teaching quickly made him realize that he wanted to make a career in the veterinary field. He has worked at larger referral animal hospitals since 2002. He received his bachelor's degree in Biology in 2006 from SUNY Stony Brook and has worked at LIVS since 2007. His hard work and dedication quickly got him promoted to a Hospital Supervisor position. He has dedicated his life to his craft of teaching and training employees and students at LIVS. "Big Mike" recently helped Dr. Dominic Marino in teaching members of various military branches and federal agents how to treat injured working dogs in the field. We are all proud of him and all LIVS' team members who are assisting our military and government agents in their duties.

The renovation process at LIVS is progressing nicely and all departments remain fully staffed to serve our patients all hours of every day and night. Consultations and appointments can be made by calling **(516) 501-1700**. As before we welcome all comments, please submit them to lmario@livs.org.

-Leonard J. Marino, MD, FAAP, LVT

Photo *LIVS' Hospital Supervisor, Michael Plante, visits Hauppauge Middle School to participate in the 8th graders' Career Day.*



Integrative Medicine at LIVS

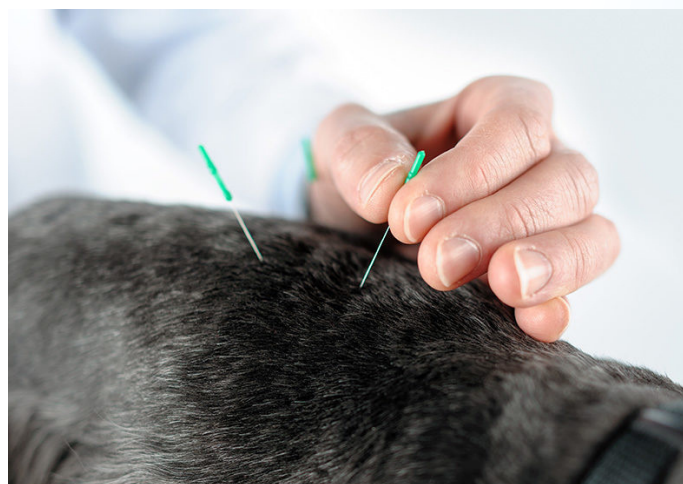


**Michel Selmer, DVM
MS, CTCVMP**

The Integrative Medicine Team takes a holistic and gentle approach to treating animal disorders. While combining techniques of both Eastern and Western medicine, our Integrative Medicine Team puts an emphasis on the patient's emotional and mental well-being. Dr. Michel Selmer is one of only a handful of Traditional Chinese Veterinary Medicine Practitioners that holds a Master's Degree in the United States.

Services offered include:

- Acupuncture
- Chinese Herbology
- Class IV Cold Laser Therapy
- Food Therapy
- Herbal Medicine
- Nutritional Consults
- Tui-na Massage



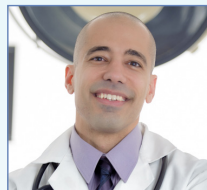
**To refer your clients to Dr. Selmer, call
516-501-1700 or visit livs.org**



Where You Refer Your Patient First Makes All The Difference



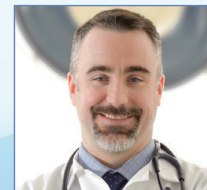
Jonathan Goodwin, DVM, MS
DACVIM (Cardiology)
Cardiology



Shadi Ireifej, DVM
DACVS
Director, Emergency Services



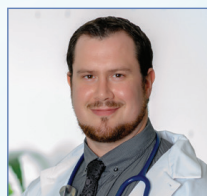
Michel Selmer, MS, DVM
CTCVMP
Integrative Medicine



Joshua W. Tumulty, DVM
DACVIM (Internal Medicine)
**Internal Medicine,
Radioiodine Therapy**



Neil Mittelman, DVM
DACVIM (LAIM;Neurology)
Neurology/Neurosurgery



Patrick F. Roynard, DVM, MRVCS
DACVIM (Neurology)
Neurology/Neurosurgery



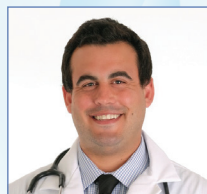
Nicole Leibman, DVM
DACVIM (Oncology)
**Oncology,
Radiation Therapy**



Kay Kim, VMD
DACVO
Ophthalmology



John S. Sapienza, DVM
DACVO
Ophthalmology



Kevin Barber, DVM
DACVS-SA
Surgery, Neurosurgery



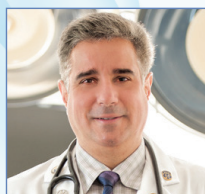
Jaclyn Holdsworth, DVM
Surgery Clinician
Surgery, Neurosurgery



Michael Larkin, DVM
DACVS-SA
Surgery, Neurosurgery



Catherine A. Loughin, DVM
DACVS, DACCT
Surgery, Neurosurgery



Dominic J. Marino, DVM
DACVS, DACCT, CCRP
**Surgery, Neurosurgery,
Radiation Therapy,
Physical Rehabilitation**



Robert Waddell, DVM
DACVS-SA
Surgery, Neurosurgery

EMERGENCY DEPARTMENT OPEN 24/7



**Long Island
Veterinary Specialists**

163 South Service Road
Plainview, NY 11803
Ph: 516-501-1700 | Fax: 516-501-1169
livs.org





Long Island Veterinary Specialists

Where You Refer Your Patient First Makes All The Difference

From the Beginning...



To the Present...



Into the Future...



Pelvic Fractures in Dogs and Cats

Continued from Front Cover

Minimally displaced fractures, fractures outside the cranial 2/3 of the acetabulum, cases where pain is well-managed, or fractures more than 7–10 days old are frequently best managed with cage rest and pain medication. Nursing care is critical in such cases to keep the animal comfortable and clean. Cage rest should include a well-padded bed, wee-wee pads or diapers for urinary and fecal accidents, regular bathing for soiled regions, and restricted activity (no running, jumping, playing nor stairs). Many patients will begin to stand within 1 week. At this point, the patient should be encouraged to stand and walk with sling support for short periods of time. After 4 weeks of severely restricted movement, the animal can be exercised on a leash for 5-10 minutes two to three times a day. The exercise can be gradually increased for the following 4 weeks.

The most common criteria for recommending surgical repair of a pelvic fracture include the following: displaced acetabular fractures involving the cranial 2/3 of the acetabulum; most ilial fractures; bilateral fracture luxation; fractures resulting in narrowing of the pelvic canal diameter 50% or more; neurologic impairment, including intractable pain secondary to the fracture; ipsilateral fractures of the ilium, ischium, and pubis, resulting in an unstable hip joint; multiple limb fractures, or fractures in working dogs or breeding females.

Sacroiliac luxations or fractures are a cause of pain, instability, and are the most common pelvic fractures associated with peripheral neurologic dysfunction. The fracture or luxation results in the craniodorsal displacement of the ilium, and surgical repair can be accomplished with lag screws or a transilial stabilizing device.

Fractures of the ilium, the most common fractures seen in the pelvis, account for 46% of all pelvic fractures reported. Fractures of the body of the ilium are consistently oblique, with the caudal fragment displaced cranially and medially.

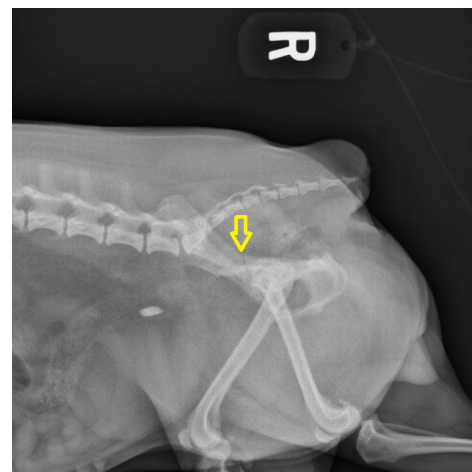
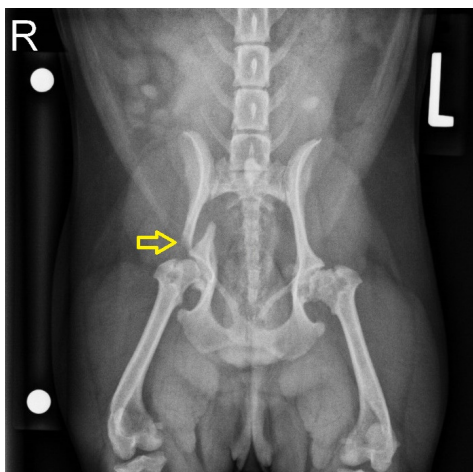
These fractures can pose two potential problems that would require surgical correction: 1) significant narrowing of the pelvic canal by the caudal fragment, sometimes with compromise of the bladder or colon/rectum; and 2) trauma to the lumbosacral region where the spinal nerves branches into the sciatic nerve just medial to the midbody of the ilium. Bone plate repair is the most common and successful means of surgical stabilization.

Acetabular fractures comprise 12% of pelvic fractures in dogs and 7% in cats. The cranial 2/3 of the acetabulum has been considered the weight-bearing surface, and it has been suggested that fractures in the caudal, or even middle, third can be successfully treated conservatively. However, osteoarthritis can occur in animals with caudal acetabular fractures that have been treated conservatively, so decisions on surgical intervention in these cases are made based on the size of the animal, age, concurrent injuries, and activity level.

Surgical repair of acetabular fractures with bone plates, bone screws, interfragmentary wire, and polymethylmethacrylate can produce good clinical results. If surgical repair is not possible, salvage procedures, such as femoral head and neck ostectomy, will reduce pain and provide good limb function.

Postoperative care will be similar to recommendations for conservatively managed fractures. Sling walking can occur within 1-2 days after surgical repair. Nursing care to keep the patient clean and dry, as well as a thick orthopedic bed to minimize pressure sores. If there are peripheral nerve deficits, the use of booties on the affected limb(s) would minimize wounds to the paws until the weakness resolves. Any concurrent injuries must also be addressed in the postoperative period, and many will resolve within the initial 2 weeks of recovery.

Continued on Page 7



Case 1: A 2 year-old FI Yorkie was closed in a recliner less than 24 hours before presentation. Her concurrent injuries were head trauma and OU scleral hemorrhages. She was stabilized and set up for surgery the following day.

Fig 1A (left): Preoperative VD radiograph – there is a yellow arrow indicating the right ilial fracture. She also has pubic and ischial fractures, as well as a severely dysplastic left hip.

Fig 1B (right): Preoperative lateral radiograph – there is a yellow arrow indicating the right ilial fracture.

Pelvic Fractures in Dogs and Cats

Continued from Page 6



Fig 1C (left): Postoperative VD radiograph – the ilium is aligned and stabilized with a plate. The “box” of the pelvis has improved as well

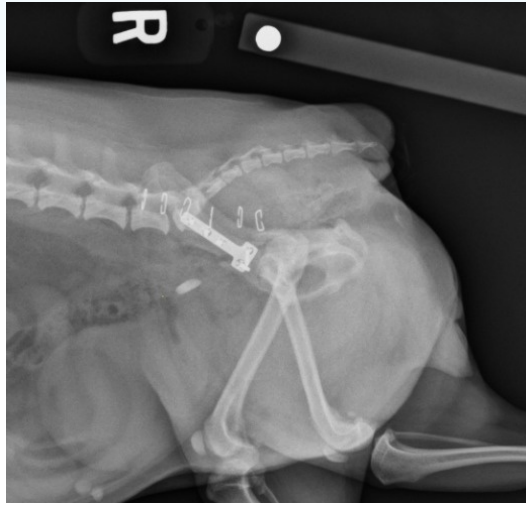


Fig 1D (right): Postoperative lateral radiograph – the ilium was aligned and stabilized with a T-plate due to the small amount of bone available along the caudal ilial fragment.

Case 2: A 4 year-old MN French bulldog presented less than 24 hours after being hit by a car. Preoperatively he was non-ambulatory in the hind limbs with extensive swelling and bruising in the inguinal and hip region. He had weak withdraw reflexes bilaterally.

The dog was able to start ambulating on the hind limbs with sling support 3 days after surgery, and his withdraw reflex in the hind limbs was intact but weak. At 21 days post-surgery he was fully ambulatory with no neurologic deficits.

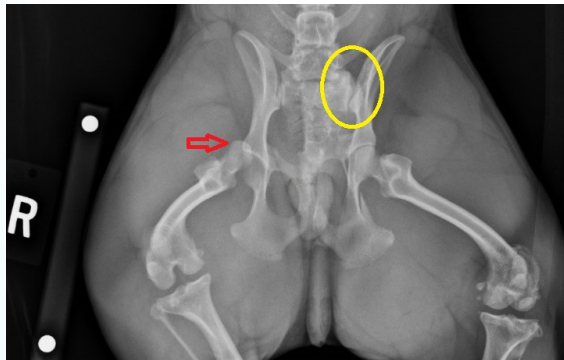


Fig 2A (left): Preoperative VD radiograph – the red arrow indicates a right coxofemoral craniodorsal luxation, the yellow circle a left sacroiliac luxation, and there are also pubic and ischial fractures.

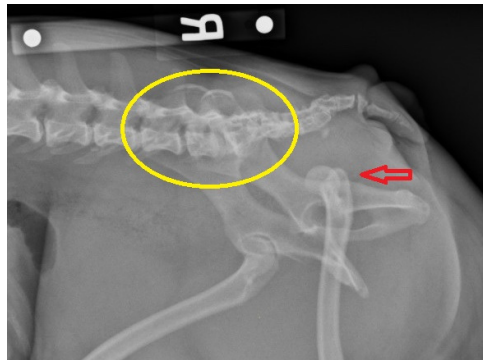


Fig 2B (right): Preoperative lateral radiograph – red arrow indicates the right coxofemoral luxation, and the yellow circle indicates the sacroiliac luxation.



Fig 2C (left): Preoperative VD radiograph – the red arrow indicates a right coxofemoral craniodorsal luxation, the yellow circle a left sacroiliac luxation, and there are also pubic and ischial fractures.

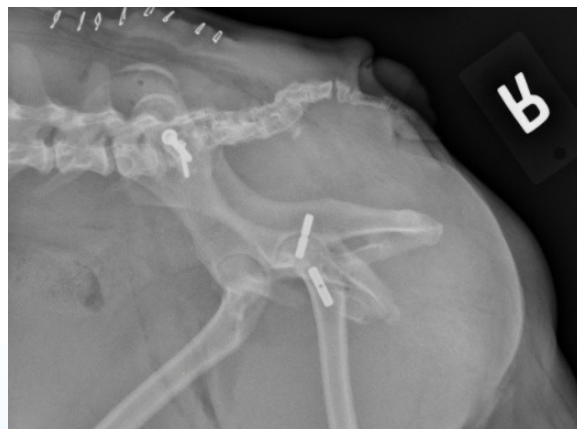


Fig 2D (right): Preoperative lateral radiograph – red arrow indicates the right coxofemoral luxation, and the yellow circle indicates the sacroiliac luxation.



Long Island Veterinary Specialists

Where You Refer Your Patient First Makes All The Difference

Neurology/Neurosurgery Department



Patrick Roynard, DVM
MRCVS, DACVIM (Neurology)
(Neurology/Neurosurgery)



Neil Mittelman, DVM
DACVIM (LAIM;Neurology)
(Neurology/Neurosurgery)

Who are we?

Our board-certified Neurologists are experts in diagnosing and treating complex neurological conditions in animals. With knowledge in today's leading-edge technology and expertise in ongoing research and treatment protocols, your pet will have access to the appropriate care and treatment necessary.

Conditions commonly seen by our board-certified neurologists:

- Chiari-like malformation and syringomyelia
- Degenerative spinal diseases
- Encephalitis
- Epilepsy
- Hearing and vision loss
- Intervertebral disc herniation
- Intracranial and spinal malformations
- Movement disorders
- Narcolepsy/cataplexy
- Neoplasia
- Neuromuscular diseases
- Stroke
- Traumatic spinal and head injury
- Wobbler's disease

Advanced medical procedures performed:

- Brainstem Auditory Evoked Response (BAER)
- CT Scan
- Electromyography (EMG)
- Spinal Puncture (Spinal Tap)
- MRI (3.0 Tesla Scanner produces the highest-quality images possible)
- Muscle and Nerve Biopsies
- Nerve Conduction Velocity (NCV) Testing
- Radiography (X-Rays)
- Stereotactic Brain Biopsy (minimally invasive)

Appointments available 6 days a week.

163 South Service Rd, Plainview, NY 11803
P: 516-501-1700 | F: 516-501-1169 | livi.org





After-Hours Video Telehealth Triage Services

DVM Video Sessions



24/7 video telehealth services provided by experienced, US-based veterinarians that triage client-perceived pet emergencies. Connect in minutes, no software downloads or appointments needed, connect in minutes in 3 easy steps from any computer or mobile device.

Maintain Veterinary Quality of Life



Eliminate the need for a veterinarian or technician to be on-call after-hours and overnights. This has shown to **substantially improve recruitment efforts** for new vets and technicians for clinic partners.

Your Cases Stay Your Cases



VetTriage is a **seamless extension of your clinic**, and are recommended to follow-up with you, their primary veterinarian. A session summary is emailed to both your office and your client allowing you to reference their triage session and insert it into the medical records.

No Cost to the Clinic



VetTriage services are offered at **no cost to your clinic!** The client pays a small triage session fee to video chat with our veterinarians. Save money by eliminating the need for an after-hours answering service, whom are not medically trained and a source of frustration for the client.

Cases are Triage for Actual Emergencies

Nearly 80% of cases do not require a visit to the ER and the unnecessary expense associated with it. These cases are given advice and are re-directed back to the clinic for follow-up, diagnostics, and treatment. While actual emergencies are sent to the ER for immediate evaluation.

Enhance Client Loyalty and Trust



Instill comfort in your current clientele that a reliable and experienced telehealth service is available during times of limited office hours and for emergency triage during after-hours, overnights, and holidays.

**For more information contact our medical director Dr. Shadi Ireifej DVM, DACVS
at (845) 527-9812 or shadi.ireifej@vettrriage.com**

What's Your Diagnosis?

John S. Sapienza, DVM, Diplomate ACVO



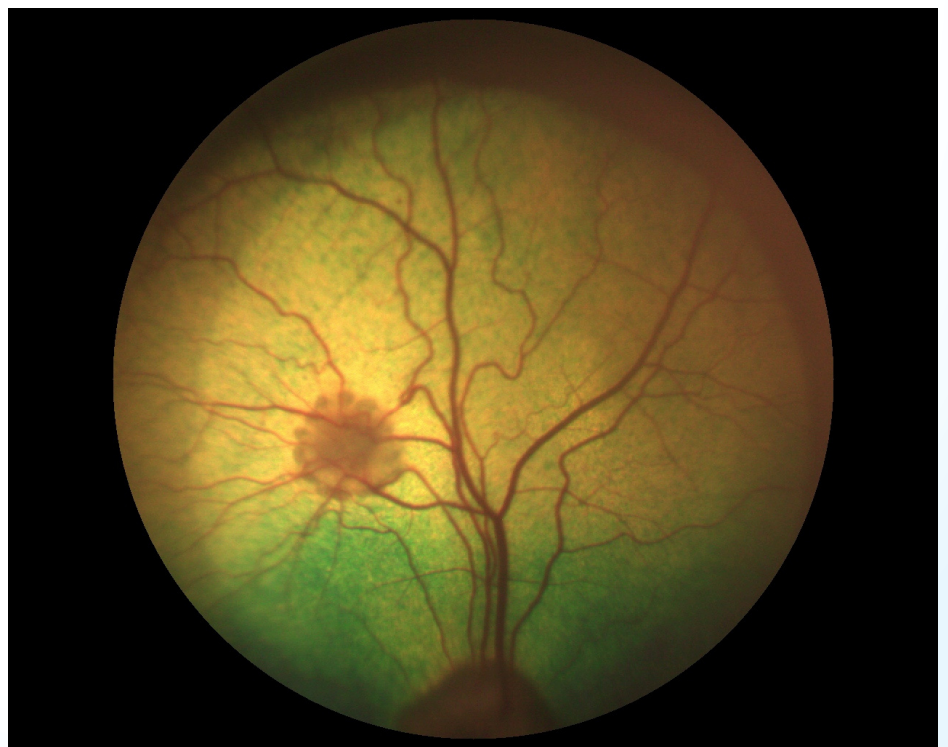
A two-year-old German Shepherd dog presents to you for an ocular examination mandated by the owner's breeder. The dog is not symptomatic for any ocular disease, and a complete ophthalmic evaluation is performed, including a Schirmer Tear test, fluorescein staining, and an intraocular pressure check by Tono-Pen tonometry. All baseline tests are considered within normal limits. The anterior segment is clear with no evidence of corneal, iris or lenticular changes. Aqueous flare is not observed. After dilating the pupil with tropicamide, posterior segment of both eyes is evaluated. The left eye appears normal, but a round lesion is observed in the dorsal tapetum of the right eye. How would you describe the lesion? Is the lesion affecting the retina, choroid, tapetum or non-tapetal zones? Is the lesion active or chronic? Is this a dysplastic lesion of the retina or a chorioretinal scar?

The lesion is in the dorsal tapetal zone of the fundus. The area is distinctly defined, which usually denotes a chronic lesion. Retinal dysplasia lesions are usually circular or vermiform (worm-like) in appearance and are usually very circumscribed. Associated inflammation does not appear to be occurring in this case. The dog has normal visual capabilities. There is no loss of menace response, and the dazzle (light perception) is strong and positive.

With such a finding, one must consider an inflammatory lesion (bacterial, viral, protozoal, and fungal), inflammatory chorioretinitis, retinal hemorrhage and a retinal dysplasia lesion. How can we further evaluate this case? An electroretinogram can be performed but would add little information because the lesion is quite small. Retinal degeneration would not be expected to accompany this small retinal lesion. Fluorescein angiography (FA), although not commonplace in the American veterinary ophthalmologist's armamentarium, would indeed elucidate an active inflammatory condition. This FA procedure can be performed but must be arranged through a human facility. An Optical coherence tomography (OCT) is an imaging technique that uses low coherence light to capture small resolution, two and even three dimensional images. The OCT provides a wonderful in-depth view of retinal lesions and would be an excellent diagnostic tool for this individual. The OCT can be arranged through a human facility, although there are units available for purchase in veterinary medicine.

A fluorescein angiography was performed and demonstrated a non-inflammatory lesion, most consistent with a previous chorioretinal scar. The lesion has been closely monitored for over 1 year with no progression of the lesion nor any visual impairment on the patient's part.

Just as with a thorough physical examination, a complete ophthalmic evaluation should always include the big "3" tests (STT, fluorescein staining, and intraocular pressure check) as well as a complete evaluation of the posterior segment of the eye. Retinal lesions can be difficult to interpret even among veterinary ophthalmologists. Ancillary tests include electroretinography, ocular ultrasonography, high frequency ocular imaging, MRI studies, fluorescein angiography and OCT. The availability of several of these units is becoming more commonplace, but still are cost-prohibitive for many. Research facilities or academic institutions have these units more readily available. In human ophthalmology, there also exists mobile units providing such technologies in an outpatient setting.



Dr. Dominic J. Marino named ACVS Founding Fellow in Joint Replacement Surgery (JRS)



Dr. Dominic J. Marino is one of the most experienced hip replacement surgeons in the country. He is recognized as an ACVS Founding Fellow in Joint Replacement Surgery (JRS). ACVS Founding Fellows are distinguished leaders as evidenced by their exemplary training, extensive experience, innovative research, and committed practice. They devote a significant portion of their professional effort in seeking to prevent, diagnose, treat, and rehabilitate patients in the specialized field of joint replacement surgery. Dr. Marino has performed over 2,000 THR procedures, starting in the early nineties. His areas of special interest include joint replacement surgery, brain surgery, and spine surgery.

Including Dr. Marino, there are only 15 veterinary surgeons recognized by the ACVS as Founding Fellows in Joint Replacement Surgery.

TOTAL HIP REPLACEMENT SURGERY AT LIVS



CEMENTED THR



HYBRID THR



CEMENTLESS THR

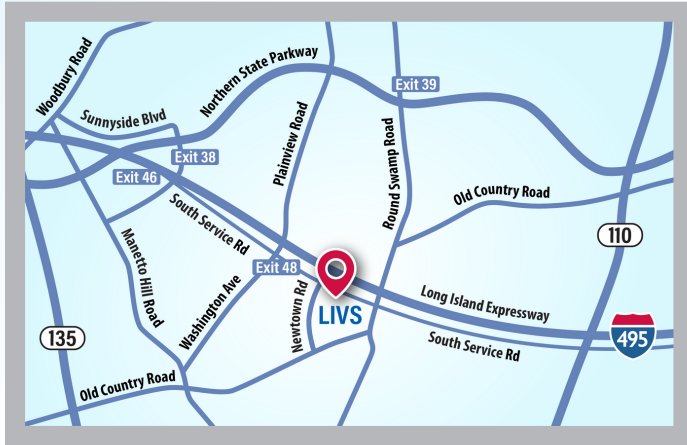
Total hip replacement (THR) is designed to eliminate the source of discomfort and restore range of motion by replacing the arthritic joint with an artificial hip joint prosthesis. THR surgery is a state-of-the-art procedure, very similar to the operation in humans. The arthritic femoral head and neck are removed and replaced with a metal head and stem (cobalt chrome metal). The arthritic socket is removed and replaced with a plastic cup (high molecular weight plastic). The metal head and plastic cup fit together like the original ball-and-socket joint, providing support and pain-free, mechanically sound movement almost immediately after surgery.

To learn more about Total Hip Replacement procedures and other Hip Dysplasia treatment options, or to refer a case: 516-501-1700 | livs.org



Long Island Veterinary Specialists

Where You Refer Your Patient First Makes All The Difference



©2021 Long Island Veterinary Specialists

DO YOU RECEIVE OUR E-NEWSLETTER?



Sign up to receive updates and news from Long Island Veterinary Specialists in your inbox. By joining our community newsletter, you'll be the first to know about new team members, service updates, upcoming events, and more!

To join, visit:

livs.org/e-newsletter

Or scan:

