



### Long Island Veterinary Specialists

Where You Refer Your Patient First Makes All The Difference



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## **INDOLENT ULCERS:WHAT NOT TO DO**

John S. Sapienza, DVM, Diplomate, ACVO



Indolent ulcers, a.k.a. Boxer ulcers or superfi cial chronic corneal epithelial defects (SCCED's) are due to a defect in the basement membrane, the corneal "glue" if you will, which allows the epithelium to adhere to the underlying corneal stroma. The diagnosis of indolent ulcers is rather straightforward. With the use of fl uorescein stain, one can observe the stain to seemingly migrate under the edge of the epithelium (the so-called epithelial "lipping") due to a detachment of the overlying epithelium to the underlying stroma. Therapeutic options focus on the re-enforcement or re-creation of this basement membrane and to promote the adhesion of the epithelium to the underlying corneal stroma. Both medical and surgical options are available. Several topical ophthalmic treatments have been published for these cases of indolent ulcers and include: topical fi bronectin, epithelial growth factor, serum, oxytetracycline, polysulfated glycoaminoglycans, aprotinin and hyperosmotic agents.

Certain ophthalmologists perform a complete superfi cial lamellar keratectomy as part of their initial therapy. Other ophthalmologists use topical ophthalmic grade cyanoacrylate over the debrided corneal bed to provoke the migration of healing corneal vessels. I prefer to perform, under topical anesthesia, either a corneal algerbrush burr debridement or manual epithelial debridement with a #64 blade and multiple superfi cial keratotomies as the initial treatment. After topical debridement and keratotomies, I often place a bandage soft contact lens on the patient's eye, and administer topical triple antibiotic solution and atropine or cyclopentolate solution. An Elizabethan collar is always advised to minimize self-trauma to the eye. Ointments are not recommended, as they may inhibit corneal healing.

Continued on page 4

## **A NOTE FROM THE EDITOR**



It's evident that the green pollen covering our vehicles is a sign that summer is here and the allergy season is in full swing. Most of us welcome the warmer weather and some of our pets will benefit from the services that our Dermatology department offers for the respiratory, skin and allergic manifestations that erupt.

On our home front, the election process is moving ahead with two candidates who are different in substantial ways and a third with a historic name who might garner enough votes to actually influence the outcome. Both sitting parties in Congress seemingly want nothing more than for the other one to be branded as fascist as our universities are seeing ceremonies disrupted by demonstrations concerning the conflicts in the Middle East. We have a short way to go before the election; may we elect wisely.

Recently Steven Wise a lawyer who achieved worldwide fame for his work to free animals from laboratories and zoos died of cancer. He brought landmark cases on behalf of captive chimpanzees, elephants and other animals and founded the" Non-human Rights Project" which works to establish the principle that animals have legal rights..... though his theory rarely prevailed in court. He brought one notable case on behalf of "Happy" an elephant kept at the Bronx Zoo. He lost his case in the Court of Appeals but there was dissent, from 2 Court justices.

Stephen Wise did this not simply in the service of some abstract legal argument but because he cared deeply about animals enclosed in laboratories and zoos. He wrote about a chimpanzee named "Jerome" deliberately infected with HIV and confined to a windowless cell who had not played in fresh air for 11 years. Wise served as president of the Animal Legal Defense Fund and then founded the Nonhuman Rights Project." He taught the first animal law course offered at Harvard Law School and taught at other universities as well Michigan and Stanford. Certainly, a person who worked for the betterment of our earthly co- inhabitants.

A recent UN report stated that half of the world's migratory species are in decline. Birds, sea turtles, whales, sharks and other migratory animals are in peril by habitat loss, illegal hunting, fishing pollution and climate change. About 44% of migratory species worldwide are declining in population and 1/5 of the 1200 species monitored by the UN are threatened with extinction; migration is essential. If you cut the migration, you kill the species.

A Kemp's Ridley sea turtle was found in Asharoken, when a local resident stumbled on an unexpected guest on the bayside. It was thought that the Kemp's Ridley sea turtle was extinct. Initially presumed to be lifeless, it was determined that the turtle was cold stunned, a state similar to a coma induced by extreme cold. Because they are unable to regulate body temperature, these cold



blooded creatures succumb to hypothermia when the water temperature drops below 50°F, are incapable of swimming and become lethargic. The New York marine rescue center in Riverhead was called, responded promptly, however despite efforts to warm and rehabilitate the juvenile turtle, their attempts were in vain.

What made this discovery in Asharoken noteworthy was the geographical significance, as this is the furthest east they've encountered a cold stunned sea turtle. This serves as a poignant reminder of the delicate balance of marine ecosystems and the vulnerability of endangered species. In June, dozens of turtles were injured and killed while crossing roads on eastern Long Island attempting to get to nesting sites.

Continued vigilance and conservation efforts are needed to protect these majestic creatures from the perils they face in an ever-changing environment. At LIVS, appointments can be made at 516 501-1700. Feel free to contact our staff members about how they may be of service.

As before we welcome all comments, please submit them to Imarino@livs.org

-Leonard J. Marino, MD, FAAP, LVT

#### **INDOLENT ULCERS: What NOT to do**

Continued from front cover

I have observed a variety of ophthalmic medications being prescribed during the postdebridement regime; many unnecessary for corneal healing. Due to the indolent nature of these ulcers during the healing process, several rounds of rotating antibiotics are often chosen from gentamicin to tetracycline to ofl oxacin. Topical aminoglycosides (namely, gentamicin) are not advised due to their epitheliotoxicity, additionally; many practitioners use topical serum or plasma and often prescribe Remend<sup>®</sup> corneal repair gel (Bayer Company). Serum can provide necessary healing factors (fibronectin etc.), but usually is reserved for melting ulcers (keratomalacia). If not properly prepared, serum can actually act a vehicle to bring bacteria to a non-infected ulcer. Great care must be consigned to the preparation of the serum as well as appropri ate storage after dispensing the serum. The Bayer website states that Remend corneal repair gel "uses cross-linked, modified hyaluronic acid (HA) to help support the natural healing process of superfi cial corneal ulcers on dogs and cats and that this product can be benefi cial to veterinary practices when a high concentration of HA is needed or desired for treatment of superfi cial corneal ulcers on dogs and cats." This product is not advertised as the magical corneal repair gel. We often see indolent ulcers where the client has been using Remend eye gel for many weeks without any healing occurring. There is no overwhelming evidence that this hyaluronic acid wetting gel assists in a more rapid healing process of an indolent ulcer.

Indolent ulcers are best treated with diamond burr debridement or superficial punctate or grid keratotomies. These chronic ulcers take usually 2-4 weeks to heal. I prefer to treat these ulcers post-debridement with a topical solution of neopolygramcidin and topical atropine or cyclopentolate. When the ulcer is healed, as evidenced by no fl uorescein retention, a topical lubricant ointment is applied to improve the regularity and smoothness of the cornea. Topical corticosteroids are never prescribed by me to improve vascularization. I prefer to allow time to allow the cornea to heal, rather than risk another episode of corneal ulceration.

## **KEYS AND HINTS:**

- Rule out the presence of any underlying causes: trichiasis, foreign body, entropion, lagophthalmos, KCS, etc.
- Avoid topical gentamicin in these indolent ulcers cases.
- I usually avoid topical ointments in these indolent ulcers.
- Never perform a superfi cial keratotomy in cats!
- Beware of the Corgi breed. These cases heal with much difficulty without a superfi cial lamellar keratectomy.
- Let clients know that the average healing time is between 2-4 weeks. Most heal within 2 weeks, in our experience.
- Do not schedule recheck visits too soon. Too frequent recheck visits cause increased frustration on your part as well as that of the owner. I usually see the case back in 2 weeks after the first visit.
- An Elizabethan collar is advised in all cases.
- Topical Nalbuphine or oral Tramadol or gabapentin are often prescribed for postkeratotomy pain control in addition to topical atropine or cyclopentolate therapy.







### WHERE YOU REFER YOUR PATIENTS FIRST MAKES ALL THE DIFFERENCE



Jonathan Goodwin, DVM, MS DACVIM (Cardiology) Cardiology



Shadi Ireifej, DVM DACVS Director, Emergency Services



Christian Blauvelt, DVM Practice Limited to Dermatology Dermatology & Allergy



Michel Selmer, MS, DVM CTCVMP, CVMMP Integrative Medicine



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



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



Kay Kim, VMD DACVO **Ophthalmology** 



John S. Sapienza, DVM DACVO **Ophthalmology** 



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



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



Robert Waddell, DVM DACVS-SA Surgery, Neurosurgery





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\*All dermatology cases seen at LIVS are reviewed by a board certified dermatologist via telemedicine.

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## **After-Hours Video Telehealth Triage Services**

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### 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 Triaged 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 Shadi Ireifej, DVM, DACVS at (845) 527-9812 or shadi.ireifej@vettriage.com



## www.vettriage.com

## A revolution in chronic elbow OA pain management



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For more information, contact us at (516) 501-1700

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#### Homogeneous Tin ( $^{\mbox{\tiny 117m}}\mbox{Sn})$ Colloid] Veterinary Device for Use in Dogs

#### NAME: Synovetin OA®

Tin (117mSn) stannic colloid in ammonium salt. It is supplied as a 2–4 mCi (74–148 MBq)/mL suspension for intra-articular (IA) injection.

#### NET QUANTITY

Vials contain a prescribed dose up to 6.0 mCi (222 MBq) at the date and time to treat one dog.1 mL of suspension contains 2–4 mCi (74–148 MBq) of tin ( $^{11m}$ Sn) stannic colloid in ammonium salt at the date and time of end use.

#### PRODUCT DESCRIPTION

Synovetin  $OA^{\oplus}$  is a conversion electron therapeutic veterinary device comprising a colloidal, sterile suspension with a pH between 6.5 and 9.0 where at least 90% of the particles have a size between 1.5 µm and 20 µm (HORIBA light scatter instrument). The <sup>1178</sup>Sn emits monoenergetic conversion electrons (significant energies 127–158 keV; emission probability 113%) and imageable gamma radiation (159 keV, 86% abundant). Accompanying low-energy emissions are Augue electrons (<22 keV) and X-rays (<30 keV). The half-life of <sup>1170</sup>Sn is 14 days. 117mSn decays by isomeric transition to stable <sup>117</sup>Sn.

Excipients include ammonium carbonate ((NH,) 2CO,), ammonium chloride (NH,CI), ammonium iodide (NH,I), iodine (L) and trace tin (Sn) salts. MECHANISM OF ACTION

#### MECHANISM OF ACTION

Synovetin  $OA^{\oplus}$  is a veterinary device consisting of a homogeneous tin colloid which emits discrete (<300 µm) low-energy conversion electrons confined to the joint space. The colloid is composed of microparticles (1.5 µm to 20 µm) that are related in the joint space of the dog. The particles are absorbed and retained by synovicytes and macrophages in the synovium, resulting in apoptosis and reduction of inflammatory cells. Elimination of the pro- inflammatory cells reduces inflammation of the joint space inflammatory cells. The data, including radiographic evidence, supports use in Grade 1, 2, and 3 osteoarthritis (OA) of the elbow joint.

#### CAUTION

Federal law restricts this device to sale by or on the order of a licensed veterinarian trained in the use of radioactive veterinary medical products. Use of this product is restricted to facilities with a compatible Radioactive Materials (RAM) license.

#### INTENDED USE

Synovetin OA® is intended to reduce synovitis and associated pain of canine elbow joints afflicted with osteoarthritis

#### WARNINGS

Do not exceed 6.0 mCi (222 MBq) of radiation activity per dog per treatment. Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental injection or ingestion by humans.

#### PRECAUTIONS

Injection should be performed only by a licensed veterinarian skilled in the delivery of intra-articular (IA) injections who is located at a facility that has a RAM license.

#### Rigorous aseptic technique must be ensured during injection

ROUTE OF ADMINISTRATION

Intra-articular injection. The product must NOT be administered by any other route. Confirmation of needle placement is recommended, whether by anatomical landmarks, fluoroscope, C-arm, ultrasound, or radiography.

#### DIRECTIONS FOR ADMINISTRATION

Dogs should be appropriately anesthetized or deeply sedated prior to administration to prevent vocalization and resistance to dosing. A 22-ga. needle can be used to inject Synovetin 0A<sup>th</sup> directly into the elbow joint. Pain during and after treatment may occur. Administration of non-steroidal anti-inflammatory agents at the labeled dose may help any post-treatment pain.

#### FREQUENCY OF ADMINISTRATION

If needed, Synovetin OA® can be readministered to a previously treated elbow at least 12 months after the last treatment. DURATION OF EFFECT FROM ADMINISTRATION

Effectiveness has been shown to last up to 12 months following a single treatment of dogs with naturally occurring OA of the elbow

#### MAXIMUM ANNUAL DOSE

Total radiation dose per joint should not exceed 3.0 mCi/joint, with the total body dose not exceeding 6.0 mCi (i.e., two elbow joints during a 12-month period).

#### ADVERSE REACTIONS

Dogs participating in clinical studies to evaluate safety and effectiveness (n=74 dogs, 97 elbow joints) exhibited no significant adverse reactions when administered Synovetin OA<sup>®</sup>. Disconfort in the treated elbow has been rarely reported in some dogs up to 72 hours after treatment. If adverse events are observed or suspected, please report them by calling Exubrion Therapeutics<sup>®</sup> Customer Service at 1-833-942-1247.

#### POST-INJECTION CARE

Following administration of Synovetin OA®, the dog can recover with other post-operation animals in the general clinic population. Once the dog has fully recovered from anesthesia, it can be discharged to go home with the approval of the facility radiation safety officer or authorized user. All treatment site policies and license requirements should be observed.

#### OWNER INSTRUCTIONS FOR POST-TREATMENT CARE

When the level of radiation is determined to be below the established levels for release, the dog can be discharged. The dog will, however, retain a low level of radioactivity in the treated joint(s) for a short period of time. Specific written instructions based on the post-treatment radiation dosimetry for care and proximity to the treated dog will be provided by the radiation safety officer (RSO) or authorized user (AU) of a radioactive materials (RAM)-licensed veterinary hospital to the dog owner. These instructions include information on limiting proximity to the dog in the post-treatment period. If in the judgement of the veterinarian, the dog owners are not likely to comply with the release instructions, the product should not be administered. A RAM-licensed veterinary hospital RSO or AU should contact Exubrion Therapeutics<sup>34</sup> if there are specific questions. Apart from the proximity requirements to protect people there is no requirement for restrain to the dog itself, and it can resume its normal level of activity subject to the distance requirements.

#### MANUFACTURED BY Theragenics Corporation for Exubrion Therapeutics®

Manufacturer's contact information: Theragenics Corporation 5203 Bristol Industrial Way Buford, GA 30518 Customer Service Phone: 833-942-1247

#### info@exubrion.com STORAGE INSTRUCTIONS

Store in the shipping container at controlled room temperature (10°-30°C or 50°-86°F) until ready to use



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## ADDRESSING LAMENESS WITH INTEGRATIVE MEDICINE

Michel Selmer, DVM, MS, CTCVMP, CVMMP, (Practice Limited to Integrative Veterinary Medicine)



## Is your patient limping or having difficulty walking? How can Integrative Veterinary Medicine help?

Lameness refers to an abnormal gait or difficulty walking, and it can be caused by various underlying causes, including musculoskeletal injuries, joint problems, or neurological issues.

Integrative Veterinary Medicine offers various treatment options for lameness in patients. Here are some common Integrative approaches for managing lameness, such as Acupuncture, Herbal Medicine, Food Therapy, and Veterinary Medical Manipulation.

### First, we need a diagnosis.

A complete history will be taken regarding your patient's medical history, including the onset and duration of lameness, any previous treatments, and any other relevant information. Clients will also be asked about the pet's overall health, appetite, digestion, sleep patterns, and behavior.

Next, we will observe the patient's gait, posture, and movement patterns, looking for signs of asymmetry, stiffness, weakness, or favoring of certain limbs. Then, a physical exam will be performed paying attention to areas of tenderness, muscle tension, or other abnormalities.

Based on the information gathered from the above steps, a diagnosis can be formulated by identifying the patterns of disharmony in the patient's body. A Chinese Pattern Diagnosis is made based on the imbalances in a patient's body. The specific Chinese Pattern Diagnosis is dependent upon the individual pet and the certified practitioner's expertise.

It is important to note that an Integrative approach must be used in conjunction with Conventional Western Veterinary Care and should not replace it. Western diagnostics like radiographs and bloodwork are often considered when formulating a diagnosis.

### How can we treat the lameness?

**Acupuncture:** Acupuncture can help reduce pain, inflammation, and muscle tension associated with lameness. Acupuncture may also improve blood circulation and nerve function.

**Herbal Medicine:** Specific herbal formulas aimed to address underlying imbalances that contribute to lameness are prescribed based on the patient's specific Chinese Pattern Diagnosis. Herbal formulas can be used to strengthen bones and tendons, reduce inflammation, reduce pain, and improve circulation, among other benefits.

**Food Therapy:** Nutrition plays a crucial role in patient health and overall well-being. Specific food recommendations are made to address imbalances contributing to the lameness. Dietary adjustments may be recommended to support the musculoskeletal system, reduce inflammation, or provide necessary nutrients for tissue repair. Foods with cooling or warming properties may be prescribed based on the patient's unique needs. **Veterinary Medical Manipulation:** VMM also known as veterinary chiropractic care, is a field within veterinary medicine that focuses on the diagnosis, treatment, and prevention of musculoskeletal disorders in animals. It involves the manual manipulation of the spine and other joints to improve the overall function and mobility of the patient's musculoskeletal system.

Veterinary medical manipulation should only be performed by a licensed and certified veterinarian who has received specialized training in these techniques. One common application of veterinary medical manipulation is in the management of lameness in pet patients. These techniques can help alleviate pain, reduce inflammation, and restore proper joint and muscle function, improving the patient's mobility and reducing lameness as a result.

If your patient is experiencing lameness, it is essential to consult with a licensed, qualified, and certified Veterinarian in Traditional Chinese Veterinary Medicine and Veterinary Medical Manipulation to assess the patient's condition and determine the most appropriate treatment options. Remember, Alternative/Complementary/Integrative Veterinary care is not intended to replace the services of Conventional Western Veterinary Medicine but instead should be combined with it. If your patient has persistent lameness, it is important to rule out any underlying Western medical conditions.

Michel Selmer, DVM, MS, MS, CTCVMP (integrative medicine), CVMMP (chiropractic), leads the Integrative Medicine Department at Long Island Veterinary Specialists. If you think Traditional Chinese Veterinary Medicine could benefit your patient, referrals can be made by calling 516-501-1700 or visiting livs.org.





# **Integrative Medicine**

## The best of both worlds in veterinary medicine.

The Integrative Medicine Team takes a holistic and gentle approach to treating animal disorders and 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
- Medical Manipulation (Chiropractic Care)
- Food Therapy
- Herbal Medicine
- Nutritional Consults
- Tui-na Massage



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

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