The Corner Informer

The Newsletter of The Southeastern Michigan Veterinary Medical Association

Volume 29 Issue 4 December 2023

Our President's Address

It is that magical time of the year when the weather is turning cold and the holidays are nearly upon us. It is also the time to reflect upon the past year. We had some excellent continuing education offered both virtually and in person with topics including behavior, neurology, dermatology, urinary disease, and respiratory. Over the summer, our Sizzling Summer Soiree was well attended at the historic Packard Proving Grounds. In August, we had our 29th annual golf outing to benefit Leader Dogs for the Blind. We recently picked our Student Loan Debt Reduction Award winners (see more within this newsletter). As we near the new year, we look to the future of our association, we have been working with the Michigan State veterinary college to reach new graduates and forming a local mentorship program.

Emily Socks

You should have received an email regarding a proposed addition/change to our association's bylaws. The Southeastern Michigan Veterinary Medical Association Board and Council felt that the addition of a veterinary technician as a non-member advisor to our council would be important to the growth of our association. This veterinary technician advisor could give valuable perspective as we continue to evolve services and support to our membership. We will be discussing and voting on the proposed bylaws addition at the annual Membership Celebration which will be held at the Royal Park Hotel on Wednesday, January 10, 2024. Should you be unable to attend, you can vote by emailing Barb at the SEMVMA office at adminsemvma@semvma.com prior to the meeting. A full copy of the Southeastern Michigan Veterinary Medical Association's Constitution and Bylaws is available on our website and a link with the Constitution and Bylaws along with the proposed addition was emailed to all members.

As always, we want to hear from you! We are hoping to engage more with our members. Let us know what your association could do for you. Check us out on Facebook. I encourage you to share any good news you have for our member spotlight or any special cases that you think others can learn from. I am excited for what our association can do together and look forward to seeing you again next year. I enjoyed my time as your president and am excited to pass the gavel at the Membership Celebration in January. I wish each and every one of you a safe and happy holiday season and joyous new year.

– *Emily Socks*

Southeastern Michigan Veterinary Medical Association

PO Box 4030
Southfield, MI 48037

Office Hours
Monday–Friday
9 AM–Noon

www.semvma.com
adminsemvma@semvma.com

1-248-651-6332
Fax 1-248-651-6333

Barb Locricchio
Administrative Secretary

2023/2024 Continuing Education

VETERINARY PROGRAM

02/28/2024 – Dr. Kate Sippel – Radiology
Sponsor: Idexx
03/13/2024 – Dr. Matthew Lemmons – Dentistry
Sponsor: Patterson Vet Dental

Sign-in for the conference begins at 8:15 am, with the seminar beginning at 9:00 am. Continental breakfast and full lunch are included. The seminars will conclude at 5:00 pm.

TECHNICIAN PROGRAM

02/28/2024 – Danielle Schaak, LVT, VTS (SAIM) - Radiology
03/13/2024 – Justine Speck, LVT - Dentistry

Sign-in and dinner for the conference begins at 5:45 pm with the seminar starting at 6:30 pm. The seminars will conclude at 8:30 pm.

For each SEMVMA member in your practice, one technician or staff member can attend each of the seminars for FREE. The cost for additional staff members or for the staff of non-SEMVMA members is our regular charge of $35. You must RSVP to ensure a meal and proceedings. Seminars will be held at:

Management Education Center
811 West Square Lake Road, Troy, MI
(248) 879-2456, http://www.mectroy.com/

You can attend our meetings in person or virtual, your choice! Please contact Barb at the SEMVMA Office to register (248) 651-6332 adminsemvma@semvma.vet

Membership Committee Report

Please join us in welcoming the following new members to SEMVMA…

Dr. Hannah Clark, MSU, 2019 – Oakland Veterinary Referral Services, Bloomfield Hills, MI
Dr. James Clark, MSU, 1978 – Mobile Veterinarian, Pinckney, MI
Dr. Ashley Reynolds, MSU, 2001 – Greenfield Animal Hospital, Southfield, MI

The 2023 membership committee is composed of 3 members:
Kaitlin Lonc, DVM klonc@ovrs.com, Emily Socks, DVM harri812@gmail.com, and Tim Duncan, DVM Duncan@oaklandanimal.com. Please feel free to contact any of us if you have any questions. If you know of a veterinarian in the area who is not a member but may be interested in joining, please contact any member of the membership committee or the SEMVMA office and we will be happy to send them information.

Save These Dates! Upcoming Activities

Membership Celebration
Royal Park Hotel, Rochester, MI
Look for your formal invitation in the mail

30th Annual Golf Outing
Tanglewood Golf Course, South Lyon, MI

SEMVMA Academy

The Southeastern Michigan Veterinary Medical Association developed the SEMVMA Academy to celebrate the commitment of veterinarians to the continual improvement of their professional knowledge and competence achieved through continuing education. There are many reasons to apply for Academy membership. Members are listed on the SEMVMA Academy web page for the current year and there is a link for members of previous years. The Academy web page listings show up on web searches when clients search an Academy member's name. Membership in the Academy is free to members and the application process is simple. To qualify, you must demonstrate 50 hours of CE during the prior year; this can include web based learning, self-study, and more (see SEMVMA.com/academy for more information). Visit our website at www.semvma.com/academy to download your application.

Applications must be submitted by February 13, 2024

-2022 Academy Members-

Steven Bailey, DVM, DABVP – Exclusively Cats Veterinary Hospital

Kathy Christy, DVM – Oakland Hills Veterinary Hospital

Judy Duderstadt, DVM – Gibraltar Veterinary Hospital

Tari Kern, DVM, CCRP, CVMA, CVSMT – Pawsitive Steps Rehabilitation & Sports Medicine

Laura Kulinski Masell, DVM – Levan Road Veterinary Hospital

Molly Lynch, DVM – Ann Arbor Cat Clinic

Michelle Meyer, DVM – Serenity Animal Hospital

Karen Michalski, DVM – Serenity Animal Hospital

John S. Parker, DVM – Briarpointe Veterinary Clinic

Julie Sherman, DVM – Serenity Animal Hospital

Dave Smith, DVM – Leader Dogs for The Blind

Sandy Smith, DVM – Animal Health Clinic

Emily Socks, DVM – Oakland Hills Veterinary Hospital

Stephanie Tallis, DVM – Animal Medical Center of Troy

Melissa Theyyunni, DVM – Animal Emergency Center

Laura Van de Grift, DVM – Oakland Hills Veterinary Hospital

Kelly Wilson, DVM – Leader Dogs for The Blind

Student Loan Debt Reduction Awards

SEMVMA has a long history as a successful veterinary organization in an educational, social and community support perspective. We are proud to have implemented an additional way to continue this standard. We all know that the cost of veterinary education has grown tremendously. The Student Debt Reduction Award was developed and instituted by SEMVMA to support members who have recently graduated. There will be two yearly awards in the amount of $5000 to help offset some educational debt. The application will be due each Fall with two awards presented at the Membership Celebration the following January. The selection process is random in the presence of a quorum of the SEMVMA Board. Applicants must meet the following criteria:

- Have graduated in the last 3 years (2021, 2022, 2023)
- Are members of the SEMVMA
- Work in one of the 9 counties that our membership derives from (Wayne, Oakland, Washtenaw, Macomb, Monroe, Livingston, Lapeer, Genesee, St. Clair & Windsor).
- Have active student loan debt that can be verified from a lending institution. Each award shall be granted to a recognized student loan provider or debtor organization.
- Have not received the award in the past

We are proud to announce the 2024 recipients:

- **Dr. Taylor White** of Madison Veterinary Hospital
- **Dr. Alexis Wilson** of Creekside Animal Hospital

Please join us in congratulating them and welcoming them to our fine association at the Membership Celebration on January 10, 2024. We hope this award represents the commitment to our community and membership.

Did you know that new veterinary graduates get **FREE** SEMVMA membership? If you have a new graduate at your practice, let them know about the Southeastern Michigan Veterinary Medical Association and about the Student Loan Debt Reduction Award!

A Review of Metacarpal and Metatarsal Fractures: The Past, Present, and Future

Edyta Bula, DVM, MS, DACVS-SA

Traditional Treatment of Metacarpal and Metatarsal Fractures

Metacarpal and metatarsal fractures account for up to 12% of all fractures in our canine and feline patients. They are most common in young, male dogs. Small dogs (< 10 kg) are slightly over-represented. The majority of these fractures occur as a result of HBC (hit-by-car) accidents, falls from high elevation, being stepped on by an owner/animal, getting the paw trapped under a rigid object, or in the case of the Greyhound, racing injuries. During racing, Greyhounds most typically fracture their left fifth metacarpal as this area encounters the most stress around a counterclockwise track. They may also fracture the second right metacarpal and the third right metatarsal. Most metacarpal and metatarsal fractures are closed and transverse or oblique fractures. Metacarpal fractures are more common than metatarsal fractures, with metatarsal fractures often leading to a greater rate of complications during healing. The literature is sparse in terms of outcomes of these fractures following either conservative or surgical treatment, and there are conflicting reports as to the superior treatment modality.

Traditionally, treatment was focused more on surgical management to improve alignment, stability, and long-term functional outcome. Surgical management was particularly desired in the following conditions:

1. More than two fractured metabones
2. Fracture of the main weight-bearing digits (three or four)
3. Open fractures
4. Comminuted fractures
5. Significantly displaced fractures
6. Fractures in working dogs or racing Greyhounds

Additionally, surgery was often advised for treatment of fractures at the base of these bones (the proximal end) or the head (the distal end). Fracture of these locations may lead to greater instability, as the base of the second and fifth metacarpals/metatarsals are often involved, leading to a valgus and varus deformity, respectively. Long-term osteoarthritis can also worsen outcome as these fractures often involve the articular surfaces. Flo recommended tension band or lag screw fixation in these locations to maximize outcome **(Figure 1)**.

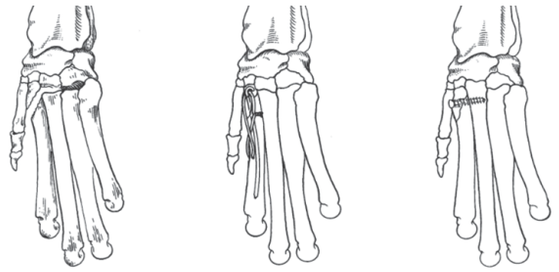


FIGURE 14-25. **A,** Fracture of the base of the second metacarpal bone is usually associated with valgus (lateral) deviation of the foot. **B,** Fixation with Kirschner wire and tension band wire. **C,** Fixation with lag screw.

Figure 1 – Reference 4

Other traditional surgical techniques have included the following:

1. Bone plate fixation
2. Intramedullary pinning
3. External Skeletal Fixation

Bone plate fixation is often used for diaphyseal fractures **(Figure 2)**. This fixation method can be particularly challenging as the plates can be bulky beneath the thin skin of the metacarpus or metatarsus. 1.0 mm (VetKISS micro plating system) and 1.5 mm locking plate systems are often used, and these can be difficult to place appropriately even with those experienced with the instrumentation.

Figure 2 – Reference 6

Multiple techniques of intramedullary pinning have been developed, including those reported by Benedetti, Anderson, Wind, and Rudy. Benedetti described drilling a hole at level of the head, followed by placement of a bent k-wire through this hole and proximally into the affected metabone. Anderson described a similar technique of k-wire placement along the dorsal aspect of the bone during insertion to avoid the articular surface. Wind reported retrograde IM pinning which involved placement of a k-wire through the fracture segment and an exit point on the dorsal aspect of the distal end of the bone. All these techniques risk splintering the bone in a region with already low bone stock. Rudy's technique, otherwise known as Dowel pinning, involves retrograde placement of the k-wire through the distal segment, followed by distraction of the fracture segments and placement of the opposite end of the k-wire into the proximal segment. This has been reported to be more feasible in cats due to increased flexibility of metabones, with a low complication rate of 18% **(Figure 3)**. However, complicated implant removal of these pins long-term should migration or infection occur have been discussed.

Figure 3 – Reference 2

External Skeletal Fixation has also been used in several combinations for the treatment of metacarpal and metatarsal fractures. Benefits of external skeletal fixation include reduced disturbance of the vascular supply and fracture callus (disturbance of the vascular supply may lead to delayed or non-union of the fracture), ability to remove implants once healing is complete, and reduced risk of long-term infection particularly with open (infected) fractures. ESF can be used on its own as a linear fixator (with Epoxy Putty), circular or ring fixators, or in combination with intramedullary pins (a tie-in configuration – **Figure 4**). The Spider technique involves placement of k-wires through the diaphysis of the fractured metabones in addition to transverse placement of pins along the base of these bones. The transverse pins are then bent dorsally and connected with epoxy resin. Placement of external implants can also be fraught with complications, such as pin loosening, damage to the articular surface with transverse pinning, and lack of frequent follow-up with the owner as desired. In one study (Rosello 2022), improved fracture alignment and a lower rate of minor complications were found with open surgical stabilization (bone plates/pins) as compared to closed surgical stabilization (ESF). In this study, there was also a greater proportion of cases with delayed healing in the ESF group (37.5%) as compared to the open group (6.5%).

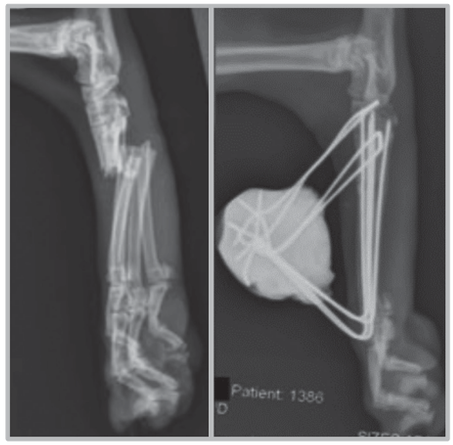


Figure 4 – Reference 3

Conservative or Surgical Management?

Conservative management relies on six to eight weeks (or more) of rigid immobilization of the metacarpus or metatarsus. Even with surgical management, the implants are under higher workloads based on their size, location, and implant type, and it is recommended to support internal fixation with external coaptation (for a minimum of four weeks, and often eight weeks). Intramedullary pinning does not eliminate rotational forces on the metabones, and persistent instability can lead to complications such as delayed or non-union.

Therefore, it is relevant to ask ourselves for each case: do the benefits of internal fracture stabilization outweigh the morbidities that can occur with surgical manipulation of the metabones. Concurrently, is there a difference in healing and outcomes with surgical stabilization?

Older literature has conflicting results as to whether surgery or external coaptation in these cases is more beneficial with less complications. Many of the original articles published were extrapolated from the human literature. However, the forces sustained on the metabones of dogs and cats are different than those in humans, and making a direct correlation can be imprudent. A 2014 retrospective analysis by Kornmayer revealed that there was no significant difference in outcome between conservative and surgical management of metacarpal and metatarsal bones in dogs. With surgical treatment, a higher degree of synostosis was found between the metabones (19%), however this did not impact return to normal function and comfort **(Figure 5)**. Greater complications were noted during metatarsal bone healing compared to metacarpal bone healing, in addition to those with greater displacement and instability. Surgery in general increased the risk for complications such as osteoarthritis and malunion. This study concluded that surgery should be pursued when displacement of the fracture segments exceeds 50% of bone diameter, with articular surface damage, with base fractures (leading to valgus/varus deformities), and when several metabones are fractured.

Figure 5 – Reference 6
Example of Synostosis

In 2000, Kapatkin and colleagues came to a similar conclusion in that functional outcome of dogs with metacarpal and metatarsal fractures did not differ between those conservatively or surgically managed. Factors that did not influence outcome in either group included fracture configuration, number of metabones fractured, and the amount of fracture displacement. Although more owners/clinicians rated "perfect" outcomes with surgery as compared to bandaging (77% vs. 56%), actual functional outcome did not differ statistically. The cases included in this study were all pets and the results cannot be extrapolated to the working dog population.

Recently, a discussion was held amongst several small animal surgeons as to their perspective on repair of metabone fractures. This revealed that there is not a collective viewpoint on when to fix these fractures and it is very dependent on case selection. When electing conservative management, some surgeons prefer soft padded bandage support compared to casting and splinting as there can be significant morbidity associated with rigid immobilization and bandage wounds. In most cases, rigid immobilization is still recommended, but in a young, non-active, and otherwise small patient, soft padded bandaging may have a similar outcome. Bandaging recommendations are anywhere from three to eight weeks and are often based on the development of bandage sores and the stability of the metacarpus or metatarsus independent of radiographic union. If the area is stable on examination, it may be prudent to remove the bandage prior to achieving radiographic union as to minimize coaptation complications. In some cases, radiographic union is never achieved yet the patient returns to normal function without lameness or pain.

Following review of the literature and recent viewpoints, it is the author's opinion that consideration should be taken in repairing metabone fractures after reflecting on the following:

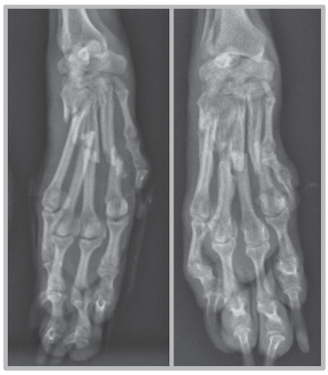
1. Significant displacement of several metabones that cannot be reduced under general anesthesia
2. Metacarpal injuries may be more feasible to repair with an improved outcome and lower complication rate
3. Concurrent injuries to the carpus or tarsus such as ligamentous/tendinous disruption (may consider arthrodesis if severe)
4. Breed-specific dogs (working dogs, agility dogs, or racing Greyhounds may benefit from repair)
5. Medium to larger dogs (compared to toy breed dogs where internal fixation may be difficult and fraught with complications)
6. Owner goals and compliance

Clinical Case Examples

Described below are examples of cases managed either conservatively or surgically at the author's clinic.

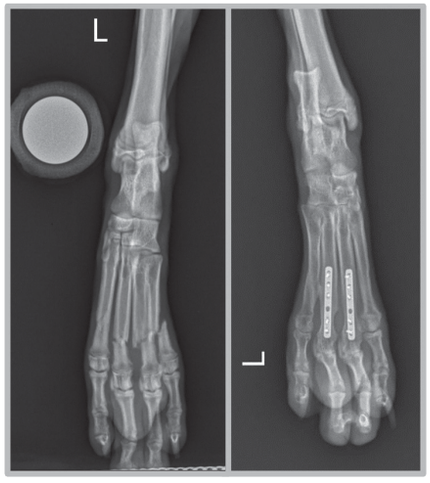
The first, a 6-year-old female spayed Chihuahua mix presented after falling from a balcony. She

sustained bilateral metacarpal fractures as well as a hip luxation. An FHO was performed, and bilateral carpal splints were placed to manage the metacarpal fractures conservatively due to patient size. Clinical union was achieved within eight weeks following injury.



Case 1. Right metacarpal fractures at the time of injury (left) and eight weeks following splinting (right).

The second, a 5-month-old male intact Boston Terrier, presented for metatarsal fractures following a farm equipment injury. He was managed surgically by placement of two bone plates on metatarsals three and four. Clinical outcome was excellent with clinical union achieved within eight weeks. Mild synostosis was present between metatarsals four and five, but this did not impact mobility or comfort.



Case 2. Left metatarsal fractures at the time of injury (left) and eight weeks following plate fixation (right).

The third case was also managed surgically; however, complications arose that required extensive management. Although long-term outcome was good, short to medium-term management was fraught with complications and increased frequency of outpatient visits.

A 1-year-old male neutered goldendoodle presented for metatarsal fractures after falling from a large height. Metatarsals two through five were fractured at the level of the proximal diaphysis. Surgical management was elected due to the number of metatarsal bones fractured and the slightly larger size of the patient compared to a toy breed dog (12 kg). Two 1.5 mm locking compression bone plates were placed along metatarsals two and three due to the greatest bone stock proximally in these areas. The other two metatarsals reduced secondarily and were stable on palpation.

Case 3. Left metatarsal fractures at the time of injury (left) and immediately post-op (right).

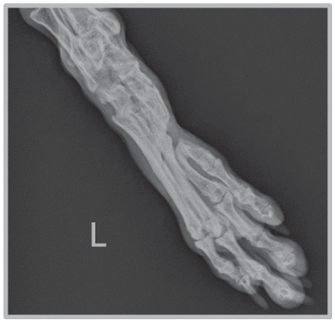
Within one week following repair, the skin over the tarsus began to progressively discolor and swell. As there was a concern for necrosis, it was elected to release the distal half of the incision and place releasing incisions along the sides of the surgical incision.

Case 3. Severe discoloration of the tarsus (left) and incisional release combined with mesh incisions (right).

Within a couple of weeks of open wound management, the bone plates were exposed due to the minimal skin in the area and persistent infection of the wounded site. Two months following fracture fixation and wound management along with splint coaptation, the implants were removed due to continued exposure and concern for permanent implant-associated infection. Because of delayed healing of the fracture sites, splint management was continued.

Case 3. Implant exposure two months following repair (left) and post-implant radiographs (right).

At month four, the bandage was fully removed as the wound had healed and the fracture sites were stable on palpation. On radiographs, there was significant synostosis between all metatarsals and radiographic union was not achieved of metatarsal two. There was significant muscle atrophy of the limb and the patient required extensive physical therapy to regain motion of the tarsus. Long-term, the patient can functionally use the limb well with minimal lameness noted during ambulation.



Case 3. Four-month radiograph showing synostosis and non-union of metatarsal two. Tarsus was stable on exam

Technique for Conservative Management for the Veterinary Practitioner:

Should conservative management be elected, the following protocol is recommended:

1. Pre-reduction radiographs should be performed.

Orthogonal views should always be obtained (cranio-caudal and lateral). Importance should be placed on straight radiographs with focus on the affected area (from the distal radius or tibia and continuing to the third phalanx).

2. Attempt closed reduction to improve apposition of fracture fragments.

Closed reduction should ideally be performed under general anesthesia, and at minimum, heavy sedation. Non-traumatic forceps, such as Allis tissue forceps or Babcock forceps should be placed either on the fractured digits to be reduced, or on metabones two and five in the case of complete metacarpal/metatarsal bone fractures. Distraction should then be performed with extension of the digits. Once appropriate reduction is achieved, an assistant can hold these forceps in a distracted position as the veterinarian places a bandage on the limb.

3. Post-reduction radiographs should be performed.

Orthogonal views should again be obtained that replicate the pre-reduction protocol. This will allow for the most appropriate comparison and ensure that reduction has been achieved. Keep in mind that although anatomical alignment is ideal, relative alignment provides a good outcome. Some overlap of fracture ends should still achieve clinical union.

4. External Coaptation

Immobilization should always be performed following closed reduction and conservative management. In select cases, a soft padded bandage may be appropriate (see discussion above), but for most cases, rigid immobilization is still preferred. Keep in mind that for juvenile patients, external coaptation should be for a much shorter duration than adult patients. In these cases, you can consider two weeks of rigid immobilization, followed by a downgrade to a soft padded bandage for another two weeks before removal. For very young patients (such as those that are two months of age or younger), padded bandaging alone for two weeks may be sufficient so as to minimize irreversible muscle contracture.

For metacarpal fractures, palmar splints with padded bandaging are placed. Fiberglass or plastic spoon splints are appropriate choices for material. In cases where contouring of the palmar aspect of the limb is not feasible with the spoon splint and causes discomfort, a direct fiberglass mold is an excellent option. For metatarsal fractures, either a lateral splint or bivalve cast is placed (with a medial and lateral component). This is dependent on the stability of the fractured metabones (and quantity of fractures), size of the patient, and compliance of the owner. In most cases, a lateral splint is sufficient without leading to excessive bandage comorbidities that a cast may cause. Again, a fiberglass mold is the preferred option. Removal of a focal region of fiberglass over pressure points (such as the calcaneus or accessory carpal bone) reduces bandage complications. A soft "donut" can also be placed over these areas to protect the overlying thin skin.

5. Recovery Period

Most metacarpal and metatarsal fractures reach clinical union within approximately eight weeks with appropriate owner compliance. Exceptions to this include very young or old patients, chronic fractures, complicated fractures (such as comminuted or open fractures), and lack of owner compliance.

Patients should be strictly activity restricted for the duration of the recovery period, ideally in a crate and with sedatives administered as needed.

Bandages should be changed every 7-10 days maximum, and sooner should there be bandage complications such as the development of wounds. If the splint becomes soiled or cracks, it should also be recreated immediately (under sedation if necessary).

The owners should be thoroughly informed on what to monitor at home regarding bandage complications, and expectations should be set during the first consultation when the fracture occurs. Setting owner expectations early improves communication and owner compliance and reduces disappointment when bandage sores occur. It is the author's opinion to educate the owner that in most cases bandage sores occur to some extent and will have to be managed throughout recovery. Most are mild and heal with appropriate treatment. The benefits of maintaining rigid immobilization and allowing for fracture healing outweighs the small disadvantage of developing bandage sores. Removing external coaptation before clinical union has been achieved can cause catastrophic complications such as fracture failure, necessitating revision surgery or amputation.

In conclusion, there is not a clear-cut solution to treating any given metacarpal or metatarsal fracture. However, if you base your decision for conservative or surgical management after careful consideration of factors that may influence outcome, the chance of success will undoubtedly improve.

References

1. Bellenger, C. R., et al. "FIXATION OF METACARPAL AND METATARSAL FRACTURES IN GREYHOUNDS." Australian Veterinary Journal, vol. 57, no. 5, May 1981, pp. 205–11.
2. Degasperi, Brigitte, et al. "Intramedullary Pinning of Metacarpal and Metatarsal Fractures in Cats Using a Simple Distraction Technique." Veterinary Surgery, vol. 36, no. 4, June 2007, pp. 382–88.
3. Fitzpatrick, Noel, et al. "Combined Intramedullary and External Skeletal Fixation of Metatarsal and Metacarpal Fractures in 12 Dogs and 19 Cats." Veterinary Surgery, Oct. 2011.
4. Decamp, Charles E., et al. Brinker, Piermattei and Flo's Handbook of Small Animal Orthopedics and Fracture Repair. Elsevier Saunders, 2016.
5. Kapatkin, A. Conservative Versus Surgical Treatment of Metacarpal and Metatarsal Fractures in Dogs. Veterinary and Comparative Orthopaedics and Traumatology, vol. 13, 2000, pp 123-127.
6. Kornmayer, Matthias, et al. "Long-term Prognosis of Metacarpal and Metatarsal Fractures in Dogs." Veterinary and Comparative Orthopaedics and Traumatology, vol. 27, no. 01, Jan. 2014, pp. 45–53.
7. Kornmayer, Matthias and Matis, Ulrike (2017): Markraumbolzung bei Metakarpal- und Metatarsalfrakturen des Hundes. In: Tierärztliche Praxis Ausgabe Kleintiere Heimtiere, Vol. 45, No. 3: pp. 154-162
8. Losikas, Peter. "Surgery STAT: Metacarpal and Metatarsal Fractures: Conservative or Surgical Management?" DVM 360, 27 Apr. 2020.
9. Muir, Peter, and John L. Norris. "Metacarpal and Metatarsal Fractures in Dogs." Journal of Small Animal Practice, vol. 38, no. 8, Aug. 1997, pp. 344–48.
10. Rossello, G., et al. "Comparison of Post-operative Outcomes After Open or Closed Surgical Techniques to Stabilize Metacarpal and Metatarsal Fractures in Dogs and Cats." BMC Veterinary Research, vol. 18, no. 1, Aug. 2022.
11. Seibert, Rachel, et al. "Stabilisation of Metacarpal or Metatarsal Fractures in Three Dogs, Using Circular External Skeletal Fixation." New Zealand Veterinary Journal, vol. 59, no. 2, Mar. 2011, pp. 96–103.

SEMVMA Constitution and Bylaws Addition

The Southeastern Michigan Veterinary Medical Association Board and Council are proposing a change/addition to the SEMVMA Bylaws which is shown below. Voting for this proposed addition to the Bylaws will be held at the January 10, 2024 Membership Celebration at the Royal Park Hotel. Passing of this addition requires a majority vote in favor of the change. We will be discussing this addition at the Membership Celebration. If you are unable to attend the Membership Celebration, but would like to vote or contribute any comments, please email Barb at the SEMVMA office adminsemvma@semvma.com prior to January 10, 2024.

Section 9: The Council may appoint a non-member advisor to the Council who is a licensed veterinary technician in the State of Michigan and works or lives inside Windsor, Ontario or the Wayne, Oakland, Macomb, Washtenaw, Monroe, Livingston, Genesee, Lapeer, or St. Clair counties, for the purpose of attending all Council meetings and advising the Council from the perspective of his/her profession as it relates to all issues before the Council. This shall be a non-compensated position, and it shall have no vote on the Council. This position shall be filled or vacated at any time, at the Council's discretion, by the Council's majority vote.

SEMVMA Mentorship Program

Attention new grads—Need a mentor? Just starting out and looking for some guidance? New to the area and want to network? SEMVMA is working on starting a mentorship program for new graduates.

A SEMVMA mentor would be an "older/wiser" SEMVMA member who would be a friendly face at SEMVMA CE meetings and other events, could offer guidance on living in Southeastern Michigan or starting out in practice, be available to talk about "life in the trenches," or just offer support.

If this is something you would be interested in, please email us at adminsemvma@semvma.com and we will get you matched with a mentor!

OPPORTUNITIES

VETERINARIANS

Creekside Animal Hospital is a privately owned small animal practice located in Macomb. We provide old fashioned TLC enhanced by modern technology and strive to expand our knowledge of veterinary medicine while upholding a high level of compassion and dedication toward animals and their families. Our clinic is 5000 sqf, with digital radiology, dental x-ray, laser therapy, ultrasound, in hospital laboratory (IDEXX) and pharmacy, with paperless practice manager software. Looking for a full or part time associate DVM. Full time benefits include medical/dental, 401k matching, vacation/sick time, 4 day work week with every other Saturday. Please email resume to Creeksideah@outlook.com

TECH WANTED

Technician or assistant wanted to start full or part time for Downtown Birmingham Veterinary Clinic. Please contact Dr. Schwartz, (248) 642-6144

EQUIPMENT FOR SALE

Ultrasound System: Mindray DC-70, High performance transducers, (Abdominal/Pelvic and Trans-vaginal). 19 Inch LED Monitor with articulating arm. 10.4 Inch gesture sensitive touch screen with adjustable angle. Dedicated endocavity transducer holder. Detachable transducer holders. USB 3.0 Port, (100 MB's). Connector for four active transducers. Includes Samsung printer ML-2165W and two toner cartridges. Includes Sony hybrid graphic printer UPX898MD, plus 8 rolls of film. $12,000 – Contact Becky Smith (586) 567-4541

CLINICS FOR SALE

Northwest Michigan Coast - Small Animal Veterinary Practice: 4,300 SF Facility with 2 Exam Rooms. Includes Real Estate. 2022 Gross Revenue $1.26 million (12% Growth over 2021). Excellent Location on Main Thoroughfare. Contact PS Broker: info@psbroker.com, (800) 636-4740, https://go.psbroker.com/MI9 (Listing MI9)

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A very nice small animal practice for sale located on a heavily traveled 4 lane road (Van Dyke Ave.) in the highly populated city of Warren, Michigan is for sale. The owner who has practiced there for 23 years is ready to retire. You can own this well established practice in a 2,112 sq. ft. brick building with an 8 car parking lot for only $350,000. Don't wait! Contact Dr. Urban, (248) 764-0421 to set up an appointment to see this property.

NEWSLETTER ADVERTISEMENT POLICY

In order to preserve the educational and informative purpose of the SEMVMA newsletter, the SEMVMA council adopts the following policy regarding advertising. Ads should be submitted to Barb at adminsemvma@semvma.com

Practices or businesses with a common owner shall be treated as one business or practice for the purpose of this policy (referred to as "Common Owner Business or Practice"). A common owner is a person or entity which owns 5% or more of an entity or practice. Shareholders or sole proprietors of an entity or practice shall be considered an owner along with the entity that holds an interest in the business or practice.

Corporate ¼ page ads are limited to one business, owner or corporation for each issue of the SEMVMA newsletter. This is in the interest of having the newsletter inform the association and not overwhelm them with ads. The SEMVMA council may modify or waive the application of this policy on a case by case basis at the discretion of the council.

Ads will run only once unless a request is submitted to the Administrative Secretary to run longer. Classified ads are $15 for 60 words or less and $25 for 61–100 words. Corporate ¼ page ads are $135 per issue or $500 for four issues. Payment is due at the time of the initial ad placement.

SEMVMA Members interested in providing Relief Veterinary Services can advertise in the newsletter at no charge. The classified ads must follow the same guidelines regarding number of words and deadline restrictions as all other classified ads. If you are a SEMVMA member interested in placing a classified ad, please contact Barb at 888-SEMVMA-5 or www.adminsemvma@semvma.com.

Newsletters are published quarterly: on March 15th, June 15th, September 15th and December 15th. All ads should be submitted to the SEMVMA office by the 15th of the month preceding publication.

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