

THE INVISIBLE AFFLICTION OF VET MED: CHRONIC PAIN

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Chronic pain in veterinary patients is sadly something that is frequently overlooked or missed. We tend to get more focused on serious or fatal medical conditions and diseases, trauma, and acute pain. Of course, it is understandable that all these things are addressed and treated. But we cannot forget those other patients who are just quietly suffering and slipping through the cracks.

Part of the problem is that owners do not know enough to be aware that their pet may be suffering with chronic pain. What they assume is just a pet naturally slowing down as they age, could be something that could be treated and give their pet a better quality of life. Therefore, educating clients on what signs to look for in their pets will go a long way towards getting more pets treated for this invisible condition.

In order to properly help our chronic pain patients, first we need to understand exactly what we are dealing with. This could be more difficult than you think. Chronic pain is a complex issue, and it is not well understood. A lot of what is understood about chronic pain in animals comes from human medicine. The traditional definition of chronic pain in humans is that it is pain that persists longer than 1, 3, or 6 months. In veterinary medicine we could potentially define it as pain that continues past what we expect the healing period to be. This continuing pain can cause neurophysiological and psychological changes in our patients. Exactly how many of our patients are living with chronic pain is difficult to assess. In humans, it is thought that the number is anywhere from 10-55% of the population. In veterinary patients, because of the problems in recognizing pain, and improper pain management for acute conditions, it is extremely possible that a very large number of dogs and cats are living with chronic and unmanaged pain.

There can be many causes of chronic pain in our patients. It can be triggered from initial trauma, injury (this includes surgical pain that wasn't properly treated), or infection. Other causes of chronic pain include osteoarthritis (OA), ruptured cruciate ligament, pancreatitis, luxating patellas, pain from cancer, feline interstitial cystitis, inflammatory bowel disease, unresolved dental issues, stomatitis, intervertebral disc disease, glaucoma, otitis, pain following an amputation (phantom pain)...the list seems almost endless. There is also a rare condition in cats: hyperesthesia syndrome where the cat has violent episodes where it becomes agitated, skin rippling occurs, and the cat will self-mutilate. The exact cause of this syndrome is still unknown, and it can be a very difficult condition to treat. There are also some dog breeds that are at a high risk of hip dysplasia and elbow dysplasia. And it has been shown that the majority of cats over the age of ten years show signs of OA pain.

Knowing this, that many animals are suffering from chronic pain, and knowing some of the common causes, then what are the next steps? First, we need to learn how to recognize the signs of this type of pain, and also educate clients on how to recognize this pain in their pets. Assessing and recognizing signs of acute pain tends to be easier for owners, and they may mistakenly focus on looking for these signs. This leads to them not recognizing that gradual behavioural changes can indicate chronic pain. Good communication between the veterinary team and owners is imperative to recognizing, and then subsequently developing a plan for treating these pets' chronic pain. Also, the assessment of pain is quite different when looking at dogs and cats and requires different tools and observation techniques. Finding the proper tools for pain assessment is imperative. There are a number of pain scoring tools for acute pain assessment. It can be a little more challenging finding one for assessing chronic pain. A lot of determining chronic pain is going to be based on observing posture, gait, and behaviour. The good thing is that most of the assessment tools developed for chronic pain have been done for owners to use. Because the most common cause of chronic pain in cats is due to degenerative joint disease and osteoarthritis, much research has been done in this area. These assessment instruments are simple to use and can show a score that can be tracked over a period of time. The problem is that the changes in the pet develop so gradually, that if an owner is not doing active monitoring, they can easily miss these signs. The more the owner is educated and engaged, the detection of chronic musculoskeletal pain in cats will increase. Some of these assessment scales involve diagnostics and monitoring, and then there are some that involve monitoring only. Along with filling out any questionnaires involved with these pain assessment tools, having

the owner take videos of their cats doing certain behaviours at home can help the veterinary team evaluate the pet more completely.

Assessment of chronic pain in dogs is quite similar to cats. Again, the education of the owner is so important, so they do not miss signs and behavioural changes that occur over time. A combination of filling out assessment forms and supplying the veterinary team with videos of the dog at home will help with a diagnosis and working out a treatment plan.

Coming up with a treatment plan for both dogs and cats will involve a thorough exam of the pet by the veterinarian, as well as obtaining a thorough history from the owner, including asking specific questions that may warrant a more complete picture of whether or not the pet is experiencing chronic pain. Radiographs can help confirm the presence of a suspected problem. Finding pain on palpation of joints and radiographic evidence of OA do not correlate well. Therefore, radiographs can confirm the cause of joint pain that was discovered on palpation, but we cannot assume that all and any abnormalities seen on radiographs represent the presence of pain.

When it comes to treatment of chronic pain, the goal is to reduce the pain enough to where the pet can tolerate it and it doesn't interfere with their daily activities or negatively affect their quality of life (QOL). It is likely quite unrealistic to expect to completely eliminate their pain. The earlier we can step in and start treating pain, whether acute or chronic, the easier the pain will be to control. Therefore, recognizing conditions that can be associated with pain, assessing these patients along with their owners, and proactively starting proper treatment are all vitally important. Deciding on a treatment plan is going to depend on several factors – what is the underlying cause of the pain, how long it has been going on, and any previous treatment that has been administered. For chronic pain treatment to be effective there are some guiding principles to follow. Pain needs to be assessed, recognized, and acknowledged by combining the use of checklists, pain assessment instruments, and physical examinations. Using multimodal pain management therapy is going to be necessary; this will involve a combination of effective analgesic medications, non-pharmacological therapy, and adjunctive treatments. Using medications, therapies, and treatments that are known to work well should be prioritized. Another factor to be considered is will this treatment plan be something the owner is going to be able to keep up with – how easy is the patient to medicate? How many trips to the veterinary clinic will be necessary? This has to be set up so the owner will be more likely to be compliant and will continue treatment for as long as the pet needs. The pet will then need to be reassessed on a regular basis, and the treatment plan altered as necessary. With appropriate and effective pain management, the nociceptive system can start to return to normal, and therefore the pet may come to require a reduced pain management plan.

Prioritizing pain management therapies can be done in a three-tiered manner, which means starting with therapies that have the most evidence of effectiveness. This does not mean that lower tiered therapies should not be used as well, as all therapies that have effectiveness need to be considered. The first thing to start with is to address any obvious underlying causes of the pain – this could involve dental procedures, amputation, removal of painful masses or lesions, stabilization or replacement of joints. Then starting with the most effective treatments, NSAIDs, anti-nerve growth factor monoclonal antibody (antiNGF mAb), omega-3s, environmental modifications, encouraging activity, weight loss, if necessary, exercise. The next tier includes adjunct therapies such as Amantadine, Gabapentin, PSGAGs, tricyclic antidepressants, intra-articular steroids (and/or other IA therapies like platelet rich plasma, stem cells), disease specific drug/other therapies (example: radiation for osteosarcoma pain). Other therapies like acupuncture, laser therapy, therapeutic ultrasound, pulsed electromagnetic field therapy, transcutaneous nerve stimulation may also be helpful, but not a lot of studies have been done to gauge their usefulness for chronic pain. The third and final tier would include medications such as Tramadol (although it has demonstrated a lack of efficacy in dogs), nutritional supplements, braces, wheelchairs, slings, or salvage surgery. There are of course other therapies to try such as cannabinoids (CBD) which have been shown to help many patients anecdotally but there may not be any evidence of proven dosage or efficacy yet.

Using nonpharmacological modalities for patients suffering with chronic pain is critically important. Helping clients get their overweight and obese pets to a healthy weight can help slow the progression of OA in weight bearing and non-weight bearing joints. Obesity can contribute to other types of pain as well – such as neuropathic pain. There has always been a lot of interest in using “nutritional supplements” for managing pain, but other than Omega-3s there

is not much evidence that they can really help. But we know nutrition itself is useful for many conditions, so there is no reason not to make sure our chronic pain patients are being fed a well-balanced, age-appropriate diet. Exercise and rehabilitation helping with pain in humans is well documented, so it stands to reason that it could be helpful for dogs and cats too. Keeping these patients moving on a regular basis will help their mobility, as will rehabilitation techniques such as stretching, massage, passive range of motion, and joint mobilization. One of the benefits of rehabilitation for owners is that some of these techniques they can be taught to do at home. Environmental modification consists of such things as making sure arthritic, injured, or neurologic pets are provided with secure footing in the form of carpet runners, yoga mats, ramps, and restricted access to areas that would be difficult for them to traverse. Acupuncture is another modality where more study is needed to determine the actual usefulness in chronic pain patients, although there are many anecdotal cases where it seems to have helped some patients.

For owners to be compliant with the pain management plan that is prescribed, education and communication is of utmost importance. Giving the owner specific instructions in writing, videos to watch, hands-on demonstrations for both how to medicate as well as how to perform any rehabilitation techniques are all extremely helpful. Owner compliance will improve if the owner understands the treatment plan, is walked through it from start to finish, and the veterinary team follows up on a regular basis and communicates with the owner that they are reachable via email or phone if the owner has any concerns. Making the owner feel like they are part of the team treating their pet, and involved with decisions about their care is going to increase the chances of improving the pet's comfort level and quality of life.

Chronic pain is a bigger problem in our veterinary patients than we realize, but that is no reason not to try to help these patients. There are more and more medications, modalities, and therapies being developed all the time, so we should do our best to keep up with these so we can help our patients to the best of our ability.

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