

Overwhelmed by pain protocols?

Let's bust the myth that comprehensive pain management is too complicated.

When veterinary surgeons are presented with a patient that needs an amputation, many cite expense and lack of time to justify their reluctance to move beyond one-and-done protocols that depend solely on an opioid and an NSAID. This case report will demonstrate that with basic knowledge of pharmaceuticals and readily acquired skills, veterinary staff can provide amputation candidates with comprehensive pain management that effectively relieves pain and reduces the potential for central sensitization.

Thalia is a 12-year-old female spayed Jack Russell terrier mix who presented with acute lameness in the left thoracic limb. Physical exam and radiographs showed no definitive cause for the lameness. Her clinician recommended oral carprofen and gabapentin to address inflammatory and neuropathic pain; a sub-anesthetic ketamine infusion and oral amantadine was added to avoid central sensitization. Suspecting a compressed nerve from narrowing of cervical disk space, her doctor recommended an MRI, which revealed a cancerous lesion on her left proximal humerus. Amputation was recommended and surgery was scheduled. Cancer pain is a mixed syndrome with nociceptive, inflammatory and neuropathic components. Orthopedic surgery can add to nerve damage, augment inflammation and cause soft tissue trauma.

Thalia's surgery protocol included oral gabapentin to alleviate anxiety, a constant rate infusion of hydromorphone, ketamine and lidocaine administered pre-, intra- and post-op, a sterile wound soaker catheter, a brachial plexus block, an incision line block, intra-op splash block, injectable Rimadyl® and lidocaine patches around the incision after closing. Thalia went home with bupivacaine to be administered via the soaker catheter, injectable hydromorphone for break-through pain, oral gabapentin, amantadine and carprofen. She slept well that night, her incision healed as expected and she was eating well within 2 days.

Thalia's veterinary team was unfamiliar with many of these treatment modalities, but they readily incorporated them into their protocol. Her surgeon had not previously administered a brachial plexus block, but did so successfully after reviewing text books and a short online tutorial. The surgeon and licensed technician infrequently utilized CRIs, but both were impressed with how stable Thalia remained during and after the procedure. The technician had never prepared a sterile wound soaker catheter but quickly learned the procedure via online instructions. The surgeon had never utilized the soaker catheter and seldom used splash blocks but found both easy to implement. Neither had used lidocaine patches, but quickly accepted their efficacy. The surgeon was also a recent convert to sub-anesthetic ketamine infusions and now utilizes them regularly. Thalia's surgery demonstrated that comprehensive pain management can be achieved without significant expense or undue effort.