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NEWS & EVENTS

Surgical Resident Wins Research Award

Ryan McCally, MS, DVM, a third-year resident in small animal surgery at the MU College of Veterinary Medicine, received an award for Best Clinical Abstract at the Small Animal Residents' Forum during the 2014 [American College of Veterinary Surgeons](#) Surgery Summit in San Diego.

McCally's abstract, "A Comparison of the Analgesic Efficacy of Epidural Anesthesia and Two Peripheral Nerve Blockades After Tibial Plateau Leveling Osteotomy," was co-authored with faculty members Alex D. Bukoski, DVM, PhD; Keith R. Branson, DVM, MS; Derek B. Fox, DVM, PhD; and James L. Cook, DVM, PhD.

Bukoski is an assistant professor of anesthesiology, and Branson is an assistant teaching professor of anesthesiology and small animal emergency and critical care. Fox is an associate professor of small animal orthopedic surgery, and Cook is the William and Kathryn Allen Distinguished Professor in Orthopaedic Surgery and director of the Comparative Orthopaedic Laboratory.

McCally's study compared the effectiveness of three methods of pain management in dogs following a tibial plateau leveling osteotomy (TPLO). A TPLO is a surgery used to treat cruciate ligament tears, a common degenerative injury in dogs.

McCally said that for hind-limb surgical procedures such as a TPLO, epidural injections have been a common choice for adjunctive pain relief in the past. However, he said, the injections can be technically demanding to administer and can risk complications.

McCally's study compared epidural injections to femoral nerve blocks (FNB) and femoral and sciatic nerve blocks (FSNB). In the past several years, the scientific literature has documented that providing a local anesthetic to target nerves produces similar results as an epidural but fewer complications. Although these studies were primarily in humans, a handful of veterinary studies have found similar results, McCally said.

Over the eight-hour period following the surgery, McCally measured level of pain, time until the first dose of pain medication was needed and number of doses of pain medication needed for each of the three methods. Dogs receiving the FSNB had significantly lower pain scores when they awoke than dogs with the FNB. Although each of the treatments provided appropriate pain relief, McCally's research showed that either nerve block would be an acceptable alternative to an epidural injection. Nerve blocks could reduce the risk of complications and the use of controlled drugs, plus they might be easier to administer in a private practice, McCally said.



McCally's research was funded by a 2013 ACVS Surgeon-in-Training Research Grant and a grant from the MU chapter of the Phi Zeta Veterinary Honor Society.

He completed his veterinary studies at Washington State University in 2010.

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