Extracapsular Repair of Traumatic Femorotibial Luxation in Birds

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This report of a novel surgical extracapsular repair of a traumatic stifle luxation in an umbrella cockatoo provided detailed descriptions of the diagnosis, case management, and potential outcomes of this medical condition in avian species.

In the Literature

McRee AE, Tully TN, Nevarez JG, Sumner J, da Cunha AF. A novel surgical approach to avian femorotibiotarsal luxation repair. *J Avian Med Surg*. 2017;31(2):156-164.

FROM THE PAGE ...

Luxations of the femorotibial (stifle) joint are relatively common in all avian species and are mainly caused by traumatic incidents, although developmental and degenerative ligament diseases are also potential causes. Multiple repair techniques have been described in the literature, but extracapsular repair appears to be the more practical route because of the size of the involved anatomic structures, which can limit an intracapsular repair.

Knowledge of avian pelvic limb musculoskeletal anatomy can allow for prompt diagnosis during the initial physical examination and is required for interpretation of the orthogonal radiographic images that will guide orthopedic repair. Understanding the stifle kinesiology (normal joint angle at perching, full range of motion, and digital use) before attempting repair is imperative. The timing and selection of the stifle stabilization can greatly affect the outcome of the chosen fixation technique.

Proper peri- and intraoperative case management can also promote optimal outcome. A carefully considered anesthetic plan and analgesic support are required for patient well-being. Once the patient is stabilized, joint cold–hot compressions and physiotherapy, as well as rearrangement of the cage design, can increase the chance for a better prognosis and return to optimal limb function.

... TO YOUR PATIENTS

Key pearls to put into practice:

1. Immediately obtaining bilateral 2-view radiographs of the entire pelvic limbs is required.
2. Any stabilization technique should ideally be applied within 3 days of the initial presentation.
3. In psittacines, the stifle should be fixed at an ideal angle of approximately 57 degrees.
4. Physiotherapy of the joint to promote full range of motion is required immediately postfixation.

Suggested Reading

Bennett RA. Management of joint luxations in birds. In: Reynolds MD, ed. *From Science to reality: a bridge to the 21st century*. Concorde, CA: International Wildlife Rehabilitation Council; 1998:11-15.

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