ARTHROSCOPY

Arthroscopy is for both the diagnosis and treatment of a variety joint diseases. Arthro- is derived from the greek word for joint while –scope (“skopein”) is a greek word meaning an instrument for viewing.

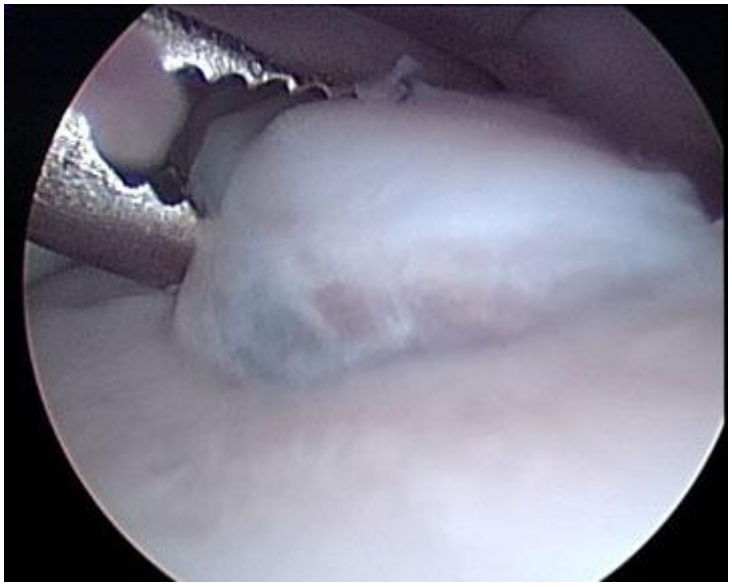
There are multiple advantages of arthroscopy over open arthrotomy with a traditional incision. Arthroscopy is minimally invasive and allows better visualization of the intraarticular structures and pathology. Patients generally have a quicker recovery and are less painful compared to arthrotomy patients. Additionally, arthroscopy allows for both the diagnosis and treatment of many conditions. From a medical perspective, arthroscopy allows for a more detailed evaluation of the joint due to the magnification that the equipment provides. Surgeons can accurately assess the degree and extent of articular cartilage damage. Another advantage is the ability to perform multiple joint procedures under one anesthesia.

For arthroscopy two, sometimes three, small 0.5-1.5cm incisions are made in the skin through which arthroscopic instrumentation is inserted. The joint is illuminated by light provided through a fiberoptic cable. A small camera is inserted into the joint that relays the images to a viewing screen which allows magnification and exceptional visualization of joint structures. Video and/or still picture images are saved for future reference and to allow for consultation with the owners in the postoperative period. Small additional portals are made to allow introduction of a motorized shaver and small hand instruments to allow for probing and smoothing of bone and cartilage surfaces, and for removal of loose or displaced bone chips or fragments.

After the inside of the joint has been evaluated and conditions treated, the instruments are removed and the incisions are closed with 1-2 skin sutures. During the surgery patients are kept under general anesthesia and immediately following the procedure a local anesthetic is injected into the joint to reduce discomfort. Postoperatively, patients may be kept in a soft padded bandage overnight depending on the joint evaluated. The small skin incisions heal within 7-10 days.

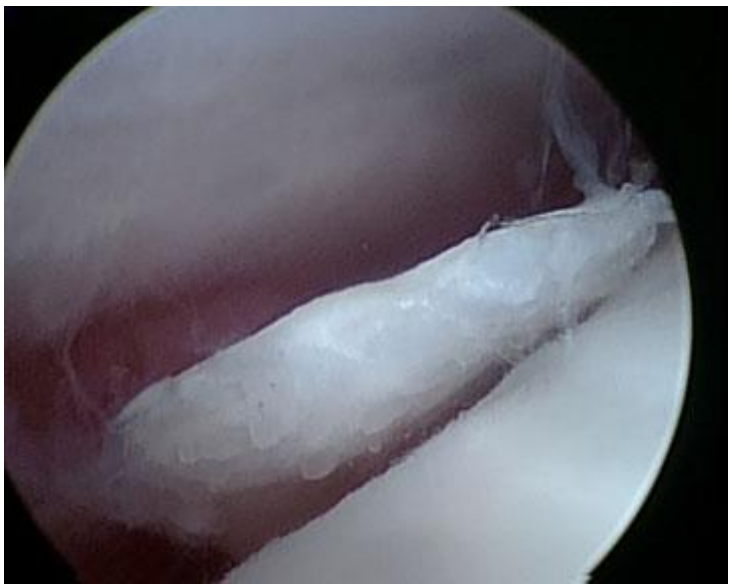
Listed are some of the specific disorders that the DVSC can diagnose and/or treat with arthroscopy:

Elbow: elbow dysplasia, fragmented coronoid process (FCP), humeral osteochondrosis dissecans (OCD), intraarticular fracture verification, microfracture technique for cartilage regeneration



Arthroscopic view of a grasping instrument removing a large fragmented coronoid process within the elbow joint of a dog

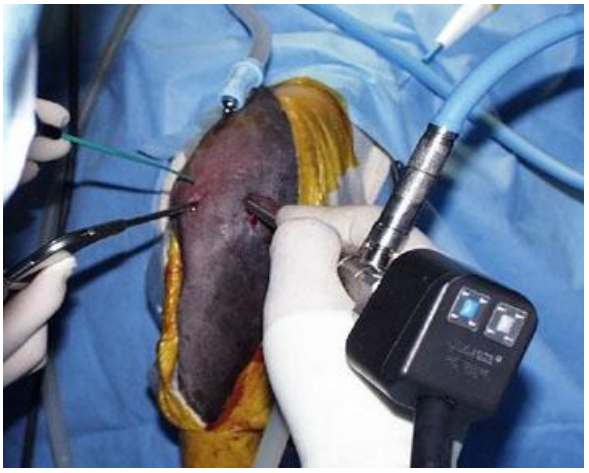
Shoulder: OCD of humeral head, rotator cuff/medial compartment injury, damage to caudal glenoid cavity, biceps tendonitis, microfracture technique



Arthroscopic view of a large cartilage flap in the shoulder of a dog, called caudal humeral osteochondritis dessicans.

Wrist/Ankle (carpus/tarsus): identification and treatment of OCD, osteoarthritis, chip fractures

Knee (stifle): verification and debridement of torn cranial cruciate ligament, identification and treatment of meniscal injuries, stifle OCD, caudal cruciate ligament injuries



Instrumentation for arthroscopy of the canine stifle (knee). The scope and camera are on the right, and a surgical instrument and cauterization probe are on the left.

Arthroscopic view of the inside of a canine stifle joint. A blunt probe is used to assess the integrity of the meniscus.

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