Elbow Arthroscopy

Similar to other joints around body, arthroscopy can be used to evaluate and treat a multitude of elbow pathology and injuries. In this procedure, a small camera is introduced into the elbow which allows for direct visualization of the joint surfaces and surrounding soft tissue including capsule and tendon structures. After the camera is placed into the joint, a working tool such as a shaver or grasper can also be placed into the joint through an accessory portal which allows for the surgeon to treat the existing pathology.

Before this surgery, a nerve block may be placed by anesthesia service to help reduce the amount of anesthesia required during the surgery and control postoperative pain. After anesthesia, the patient is placed lying on their side (lateral decubitus position). Many pillows and positioning devices are used to support and protect the patient. This position allows for the elbow to be easily accessible and manipulated during the surgery. A tourniquet is used to limit bleeding, and then saline is injected with a needle into the elbow to expand the joint and move surrounding nerves and vessels away from the surgery site. A camera is then placed into the front of the elbow which allows the surgeon to visualize several important structures including the radial head, capitellum, coronoid and trochlea. Several accessory portals can be made which allow for debridement of excessive osteophytes (bone spurs), release of tight capsular tissue, removal of synovitis (synovial inflammation), removal of loose bodies, or even repair of fractures. The camera can then be moved to the back of the elbow (olecranon fossa) for evaluation and continued debridement as necessary.

After surgery, the skin portals are sutured closed and a sterile bandage, or dressing, is placed on the arm. This remains on the arm for approximately five days, during which time the arm must remain dry. After five days, the dressing may be removed and the incisions can get wet in the shower. Depending on the type of surgery, early range of motion of the elbow is encouraged to prevent further stiffness and some patients may start aggressive therapy very early in the postoperative period. Pain is controlled initially with the nerve block, and then patients are given prescription pain medicine as needed to limit pain.

Elbow arthroscopy is typically a very safe procedure; however several complications have been reported. Most of these include nerve injuries, as the major nerves of the arm run directly past

the elbow joint in close proximity to the capsular tissue that contains the joint. Nerves are protected during the surgery by the surgeon taking great care to place skin portals in safe areas of the arm, making sure the elbow joint is expanded with fluid to push the nerves away from the joint, and limiting the aggressiveness of debridement of the capsule. Overall, the outcomes following arthroscopic elbow surgery are excellent with majority of patients improving in terms of pain relief and function after surgery.