Arthroscopy

A joint, or articulation, is the junction of two or more parts of the skeleton that are attached in such a way that the two parts can move relative to each other in one or more directions. The bones of the joints are held together by tough, fibrous strands[1] called ligaments. The opposing surfaces of the bones that form a joint are molded to each other and are covered by a layer of cartilage, a dense, pad-like tissue. The space between bones in the joint is the joint cavity, and it is enclosed by the capsular sac, a durable, fibrous tissue fastened to the ends of the bones. This membrane is lined with a very sensitive lining, the synovial membrane, which secretes a lubricating substance that also furnishes nourishment for the joint cartilage. Tendons and muscles, which are attached to the bones in the joint, provide additional stability and the ability to control movement.

Disease and injuries can damage bones, cartilage, ligaments, muscles and tendons. They include torn[2] or abnormal cartilage, torn ligaments, loose fragments of bone or cartilage, damaged joint surfaces, inflammation of the joint lining, and misaligned[3] bones. When a patient comes to the doctor with a joint injury or disease, the doctor must reach a diagnosis by conducting a thorough medical history and physical examination, and sometimes x-rays. Further diagnosis may require what is known as arthroscopy to provide a better view of the affected bones and soft tissues (ligaments and cartilage).

Arthroscopy is a surgical procedure employed by orthopedic surgeons to view, diagnose and treat problems inside a joint. To perform an arthroscopic examination, the surgeon makes a small incision in the patient's skin and then inserts the arthroscope, a miniature lens[4] and lighting system about the size of a pencil that magnifies and illuminates the structures inside the joint. Since this technique was developed in the 1970s, hundreds of thousands of patients have chosen it over other types of surgery because the scar is smaller, the hospital stay shorter, and recovery faster.

The term "arthroscopy" is derived from two Greek words, "arthro" (joint) and "skopein" (to look). Thus, it literally means "to look within the joint." Light is transmitted through fiberoptic cables[5] to the end of the arthroscope, which is inserted into the joint. By using a miniature television camera and screen[6] combination, the surgeon can see inside the joint. The television camera attached to the arthroscope displays the image of the joint on a television screen. The surgeon can thus look directly at the joint shown in the large image on the screen, determine the extent of injury, and then perform whatever surgical procedure is necessary. The arthroscope enables the surgeon to see more of the joint than is possible even with a large incision made during an open operation. Moreover, areas that are sometimes difficult to see on an x-ray can be seen during arthroscopy. The knee is by far the most common joint to be examined using this technique. Other joints include the shoulder, elbow, ankle, hip, and wrist.

Diagnostic arthroscopy must be performed in a hospital operating room or outpatient surgical suite. The patient is given an anesthetic, either general, spinal, or local. After the surgery is over, the patient is moved to a recovery room where ice packs may be applied to the incision sites to reduce swelling, and medications may be administered to reduce pain. Before being discharged, the patient will be instructed on the proper care of the incision, what activities should be avoided, and what exercises should be done to speed recovery. An appointment is made for a followup visit so that the surgeon can inspect the incisions, remove sutures, and discuss the rehabilitation program.

Recovery time varies considerably from one patient to the next. Not all arthroscopies are the same. Some patients are able to return to work or school or resume daily activities within a few days. Athletes and others who are in good physical condition may, in some cases, return to athletic activities within a few weeks. Each case is unique, however, and recovery time depends on the nature of the joint problem and the individual's physical condition.

1. strand: filamento 2. torn: desgarrado 3. misaligned: mal alineado 4. lens: lente *f*
5. fiberoptic cable: cable de fibra óptica 6. screen: pantalla