Ankle Arthroscopy: Diagnosis and Treatment

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Significant progress has been made in the field of endoscopic foot and ankle surgery over the last 25 years. Arthroscopy of the ankle joint has become an important diagnostic and therapeutic procedure for the detection and treatment of chronic and posttraumatic problems. Additional X-rays, such as the Anteromedial impingement view, the Heel rise view or the Posterior impingement view, are important for the confirmation of a clinical diagnosis and for planning a treatment.

Anterior ankle problems include soft tissue and bony impingement, synovitis, loose bodies and ossicles. Complaints, located more centrally, can originate from an osteochondral defect or from arthrosis. For preoperative planning, CT-scanning offers better information than MRI imaging. Therapy is mainly guided by the size of the lesion. For primary lesions, the best option for treatment is currently debridement and bone marrow stimulation. Large cystic lesions can be treated by retrograde drilling and bone grafting. Secondary lesions can be treated by osteochondral transplants or chondrocyte grafts.

Because of its nature and its deep location, posterior ankle problems pose a diagnostic and therapeutic challenge. By means of a two portal hindfoot approach with the patient in the prone position, posterior ankle joint problems, such as loose bodies, ossicles, osteophytes or osteochondral defects, can be treated. In case of a posterior ankle impingement syndrome, bony impediments like an os trigonum can be detached and removed. This approach offers access to the deep portion of the deltoid ligament, the posterior syndesmotic ligament, the posterior talofibular ligament, the flexor hallucis longus tendon, as well as the posterior compartment of the subtalar joint. Pathology of these structures can be detected and treated.

Tendoscopy of the peroneal tendons, the posterior tibial tendon and the achilles tendon offers access to these tendons for diagnostic and therapeutic purposes. For chronic retrocalcanear bursitis, endoscopical calcaneoplasty has demonstrated to show several advantages, including low morbidity, functional after-treatment, outpatient treatment, excellent scar healing, a short recovery time and quicker sport resumption in comparison to open techniques. The same advantages apply to most of the endoscopic techniques described in this issue. Surgeons familiar with the arthroscope, as well as their patients, will find these arthroscopic techniques a more rewarding experience.