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Titel des Beitrags: [Prospective comparison of ARTOSCAN-MRI and arthroscopy in knee injuries]

Abstract: The results of magnetic resonance imaging (MRI) were compared with those of arthroscopy in a prospective series of 276 patients. A "dedicated system" for MRI of limbs and peripheral joints--the 0.2 Tesla ARTOSCAN (ESAOTE, Italy)--was used for imaging knee joint lesions. T1-weighted spin echo sagittal images, T2-weighted gradient-echo coronal images, and axial views for lesions of bone and the femoropatellar joint were acquired. If necessary paraxial sagittal and oblique coronal views were obtained for imaging of the cruciate ligaments. This protocol allowed excellent visualization of the cruciate ligaments, medial and lateral meniscus in almost all patients. Compared with arthroscopy performed within 48 hours after imaging, the sensitivity, specificity, and accuracy were respectively, 91, 92 and 91 per cent for tears of the medial meniscus; 80, 96, and 92 per cent for tears of the posterior meniscus; 100, 100, and 100 per cent for tears of the posterior cruciate ligament; 93, 98, and 99 per cent for tears of the anterior cruciate ligament; and 73, 100, and 92 per cent for full-thickness articular cartilage lesions. The examination can be performed within 30 to 45 minutes at a cost that is lower than that of diagnostic arthroscopy. ARTOSCAN imaging is a safe and valuable adjunct to the clinical examination of the knee and an aid to efficient preoperative planning.

Zeitschriftentitel / Abkürzung: