

Magnetic resonance imaging in follow-up assessment of sciatica.

Barzowhi, et al.

N Engl J Med 2013; 368:999–1007

At 1 year, disk herniation was present in 35 % of MRI scans on patients whose symptoms had resolved and in 33 % of those whose symptoms persisted. The trial was conducted at nine centers, included 283 patients who had a 6 to 12 week history of sciatica and MRI evident disk herniation, at baseline. The patients were treated with either early surgery or conservative care for 6 months, followed by surgery if symptoms did not abate. Two hundred sixty-seven patients had a second MRI a year after randomization. At 1 year 84 % of patients reported a favorable outcome. Nerve root compression was present on MRI in 24 % and 26 % of patients reporting favorable and unfavorable outcomes. Eighty-five percent of patients with disk herniation at 1 year felt they had a favorable outcome as did 83 % of those with no evidence of disk herniation. At 1 year, disk herniation or protrusion of scar tissue had no relation to presence or absence of sciatica.

Clavicular length: the assumption of symmetry

Cunningham, et al.

Orthopedics (2013) vol 36, p190.

In the setting of trauma, 15 mm of shortening is said to be a relative indication for operative management. Because all measurement techniques assume clavicular symmetry to assess shortening the authors of this study used CT to measure clavicular length, bilaterally, in uninjured, skeletally mature adults by measuring the distance from the lateral most point at the AC joint to the medial most point at the sterno clavicular joint and divided their study population into two groups. Group 1 was symmetric with a difference of more than 5 mm. Mean difference in clavicle length for all patients was 4.25±3.8 mm. Symmetry was found in 73 (71.5 %) patients. Twenty-eight percent of clavicles were

asymmetric with an asymmetry greater than 10 mm found in 7 %—a measure that could affect treatment decisions.

¹⁸F Fluorodeoxyglucose positron emission tomography/computed tomography for the detection of recurrent bone and soft tissue sarcoma.

Al-Ibraheem A, et al.

Cancer (2013) Vol 119, 1227–1234

43 patients with a history of bone or soft tissue sarcoma and documented complete remission underwent ¹⁸F-FDGPET/CT. Image analysis was performed independently for PET and CT by two separate readers whereas the combined images were interpreted in consensus by the same two readers. PET/CT had greater sensitivity and specificity than contrast enhanced CT alone (94 % and 92 % vs 78 % and 67 % respectively) and significantly greater accuracy (93 % vs 73 %). The detection of local recurrence was the most evident advantage of ¹⁸F-FEDPET/CT over contrast enhanced CT.

Increase in vastus medialis cross-sectional area is associated with reduced pain, cartilage loss and joint replacement risk in knee osteoarthritis.

Wang Y, et al.

Arthritis and Rheumatism (2012) Vol 64, 3917–3925

117 subjects with symptomatic knee OA underwent MRI of the knee at baseline and at 2 and 4.5 years to determine the relationship between change in vastus medialis cross-sectional area (CSA), knee pain, tibial cartilage volume and risk of knee replacement. Vastus medialis CSA was measured at baseline at 2 years. Tibial cartilage volume at baseline 2 and 4.5 years respectively. The frequency of knee joint replacement over 4 years was determined. After adjusting for confounders, an increase in vastus medialis CSA from baseline to 2 years was associated with reduced pain, reduced medial tibial cartilage loss from 2 to 4.5 years and reduced risk of knee replacement over 4 years (odds ratio 0.61 [95 % CI 0.40, 0.94]).