Focal knee lesions in knee pairs of asymptomatic and symptomatic subjects with OA risk factors--data from the Osteoarthritis Initiative.

Abstract:
To better understand the relationship between knee pain and bilateral knee lesions, we compared focal knee lesions in knee pairs of subjects with no, unilateral, and bilateral knee pain, and risk factors for knee osteoarthritis (OA), but no radiographic knee OA. We examined both knees of 120 subjects from the Osteoarthritis Initiative database. We randomly selected 60 subjects aged 45-55 years with OA risk factors, no knee pain (WOMAC pain score=0) and no radiographic OA (KL-score=5): 30 subjects with right only knee pain and 30 subjects with bilateral knee pain. All subjects underwent 3T MRI of both knees and focal knee lesions were assessed. Statistically significant associations between prevalence of focal lesions in the right and left knee with odds ratios up to 13.5 were found in all three subject groups. Focal knee lesions were generally not associated with pain in analyses comparing knee pairs of subjects with unilateral knee pain (p>0.05). The prevalence and severity of focal knee lesions were not significantly different in knee pairs of subjects with no knee pain and those with bilateral knee pain (p>0.05). Focal knee lesions in the right and left knee of subjects with OA risk factors were positively associated with each other independent of knee pain status, and were not statistically significant different between knees in subjects with unilateral knee pain.