Grade 2C signal in the meniscus

Reference List


Abstract: OBJECTIVE: The objective of our study was to evaluate the clinical significance of grade 2C meniscal [corrected] signal (an extensive triangular or wedge-shaped signal that does not reach the surface on more than one image) on MR imaging of the knee. MATERIALS AND METHODS: Review of 1106 MR imaging reports over 2 years revealed 88 patients with menisci described as containing triangular, wedge-shaped, extensive, or grade 2C signal. Image review by consensus of two radiologists found 34 menisci in 29 patients that fit criteria for grade 2C signal. Seven menisci containing grade 2C signal were evaluated with arthroscopy. An additional three patients with grade 2C meniscal signal with arthroscopic correlation were identified from 4 previous years. RESULTS: Prevalence of grade 2C signal was 1.5% (34/2212 menisci). Seven (21%) of these 34 menisci had subsequent arthroscopy and three of these had meniscal tears. Including the three additional menisci with grade 2C signal from 4 previous years, five (50%) of 10 menisci with grade 2C signal were torn at arthroscopy. No difference was noted between torn and intact menisci in the number of images with grade 2C signal. In patients with tears, the range was three to 10 images (mean, 6.6 images) compared with a range of two to 10 images (mean, 6.6 images) in patients without tears. The maximal percentage of area of abnormal signal in patients with tears ranged from 70% to 90% (mean, 80%) compared with a range of 60-90% (mean, 82%) in patients without tears. The patient age range was 23-64 years (mean, 47 years) in patients with tears and 16-67 years (mean, 47 years) in patients without tears. CONCLUSION: Grade 2C meniscal signal has a low incidence. Although half of patients with symptoms meriting arthroscopy have tears, most patients with grade 2C signal are not treated with arthroscopy.