Figure 8.7 Sagittal $T_1\rho$ color maps (a and d) with baseline (b and e) and follow-up (c and f) sagittal morphological magnetic resonance images. Images were obtained on a 3 T GE clinical MRI scanner. Lower patellar $T_1\rho$ values (30 ms) were at baseline (a). Baseline (b) and follow-up (c) depict intact patellar cartilage with no degeneration (c). Increased $T_1\rho$ values (>40 ms) were observed in this patient at baseline (d). Baseline (e) and follow-up (f) demonstrate progression of a cartilage lesion at the patella: at baseline, mild fissuring of the cartilage at the patella is shown (short arrow) associated with bone marrow edema pattern (long arrow); and at the follow-up (f) progression to extensive full-thickness cartilage loss is noted at this site. (Reproduced from Osteoarthritis Cartilage, 21, A. P. Prasad, L. Nardo, J. Schooler, G. B. Joseph, T. M. Link, $T_1\rho$ and $T_2$ relaxation times predict progression of knee osteoarthritis, 69–76, Copyright 2013 with permission from Elsevier.)