The current study was designed to evaluate the rate of osteolysis and the clinical and functional outcomes in patients who underwent mini-open rotator cuff repairs using first generation bioabsorbable suture anchors. Our hypothesis was that patients with osteolysis noted on post-repair MRI would have an accompanying decrease in functional and clinical patient outcomes when compared with patients who did not have osteolysis evident on post-repair MRI. Clinical retrospective study. Between September 2000 and May 2004, 76 patients were repaired using first generation Bio-Corkscrew suture anchors (Arthrex, Naples, FL). 30 patients were available for complete follow-up evaluation. The mean follow-up time was 36 months (range 24-58). Patients were assessed with the Constant-Murley Score, radiographs and magnetic resonance imaging (MRI). Post-operative strength was measured using an Isokinetic Cybex-Dynamometer. 14 patients had osteolysis evident on MRI (Group A) while 16 patients did not have osteolysis on MRI (Group B). In both groups, a total of 70 bio-anchors were used. 22 anchors showed osteolytic changes on MRI (Group A). Concerning ROM, there was no statistical difference in both groups. The Constant-Score was statistically not different in both groups A (92.4) and B (83.7). On MRI-scans, there were repair failures in both groups (A, 2 reruptures; B, 3 reruptures). Although, we found a high
rate of osteolysis after rotator cuff repair with bioabsorbable anchors, these results did not change the clinical outcomes after rotator cuff repair. Recurrent tears were not significantly different in both groups and are comparable to rerupture rates in prior studies. More studies are needed to verify the effect of osteolysis over the long term.