Nonoperative treatment of acute or chronic complete ruptures of the proximal hamstring tendons leads to functional impairment in sports activities. The objective of the study was to evaluate the functional status after primary and delayed surgical treatment including objective (isokinetic hamstring and quadriceps muscle testing, hamstring flexibility) and subjective parameters (overall satisfaction, postoperative sports level). A total of eight patients (six male, two female) with an average age of 40.0 years (range 23-60) were treated operatively by refixation of the ruptured tendons in anatomical position using a suture anchor system. Six patients were treated within 3 weeks after trauma, while two patients were operated after delayed diagnosis of more than 2 months. The average clinical follow-up was 33.3 months (range 12-59). Overall, at minimum follow-up of 20 months, all patients were satisfied with the functional outcome and would undergo operative treatment again. At follow-up, seven patients could return to their preinjury sports level. In two patients, however, we noticed a delayed return to preinjury sports level of more than 24 months. The peak torque of the operated hamstrings in isokinetic muscle testing was 88.3% (range 62.9-113.8), as compared to the contralateral extremity. The ratio of hamstring to quadriceps muscle strength was on average 0.55 (range 0.44-0.66; injured side) versus 0.61 (range 0.52-0.68; uninjured side). Measurement of hamstring flexibility
showed no difference to the contralateral hamstrings. In cases of timely diagnosis, surgical treatment is the standard treatment for complete ruptures of the proximal hamstring tendons in patients with ambitions inclined toward sports. The suture anchor system implements an elegant and effective technique for the treatment of such lesions.