

Complications Associated with Proximal Hamstring Tendon Repair: A Systematic Review

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PURPOSE: Although several potential complications of proximal hamstring tendon ruptures have been reported in the literature, few studies comprehensively analyze the complication profile of proximal hamstring tendon repair. The purpose of this systematic review was to identify the overall rate of complications following proximal hamstring tendon repair, to differentiate these complications into categories, and to compare the complication rates of open versus endoscopic repair. METHODS: To qualify for study inclusion, included articles were required to be published in English, Level-4 evidence or higher, and had to examine surgical repair of proximal hamstring tendon ruptures. No restrictions were made regarding publication date and methodological quality. Data regarding complications were extracted to calculate the overall complication rate as well as the rate of major and minor complications. A quantitative data synthesis was conducted using Chi-square tests to compare the proportion of patients who experienced complications with endoscopic and open approaches. **RESULTS:** Forty-three articles including 2,823 proximal hamstring tendon repairs were identified. The overall postoperative complication rate was 15.4% (n=436). The rate of major complications was 4.6%, including a 0.8% re-rupture rate, 0.8% re-operation rate, 1.7% rate of sciatic nerve injury, 0.9% rate of venous thromboembolism, and 0.4% rate of deep infection. Minor complications included posterior femoral cutaneous nerve injury (2.4%), persistent sitting pain (2.3%), persistent hamstring myopathy (2.3%), hematoma/seroma (0.8%), peri-incisional numbness (1.8%), and superficial infection (1.1%). Endoscopic proximal hamstring tendon repair was associated with a higher rate of overall complications (p=0.012), major complications (p=0.048), and minor complications (p<0.001) compared to open repair. **CONCLUSION:** Proximal hamstring tendon repair is associated with an overall complication rate of 15.4%, including a 4.6% rate of major complications. There was a statistically significant increase in complications for patients treated endoscopically compared to those who underwent open surgical repair.