

# Editorial Commentary: Endoscopic Proximal Hamstring Repair Is Safe and Effective for Refractory Tendinosis and Partial Tears: “Pain in the Butt” Has an Endoscopic Solution!



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**Abstract:** While surgical treatment of acute proximal hamstring ruptures is well understood to be the best treatment option for many patients, treatment of chronic proximal hamstring pathology has lagged, with most management consisting of conservative options: rest, ice, physical therapy, nonsteroidal anti-inflammatory drugs, shock-wave therapy, and injections such as corticosteroids and platelet-rich plasma. However, recent research shows that endoscopic repair of chronic proximal hamstring pathology is safe and effective for treating this pathology at short-term follow-up, with high rates of return to activity and patient satisfaction. This presents an appealing treatment option for patients with refractory proximal hamstring pathology, as well as a technique for repairing acute, full-thickness tears. With attention to detail, complication rates are low for endoscopic treatment of both acute and chronic proximal hamstring pathology.

See related article on page 3275

As a hip preservation surgeon, I am excited every time I see a young patient with classic c-sign hip pain and a large cam lesion, knowing that I can likely help this patient’s symptoms and improve their quality of life with arthroscopic femoroacetabular impingement treatment. That feeling of excitement is absent, however, when a patient presents with posterior hip/buttock pain in the absence of an acute injury, knowing that the road to improvement for this patient may be long, circuitous, and many times unsuccessful. While diagnosis can be a significant challenge, it is often the treatment itself that brings ambiguity to the patient’s prognosis; proximal hamstring pathology is a well-known source of pain and dysfunction, but until recently, the idea of performing open surgery to treat the magnetic resonance imaging finding of a partial-thickness tear of the hamstring tendon(s) or tendinosis seemed like a long run for a short slide. These patients were generally limited to conservative treatment, consisting of physical therapy,

nonsteroidal anti-inflammatory drugs, activity modification, and injections (with cortisone and, more recently, with platelet rich plasma). Although this plan works well for many patients, a significant percentage do not improve with conservative treatment, and until recently, open hamstring surgery was the only game in town. While this works well and is often the best option for full-thickness, retracted hamstring tears, the relatively high complication rate with this procedure (including peri-incisional numbness and wound complications) has resulted in a quest for alternative treatment options. Within the past decade, there has been a paradigm shift in understanding this pathology, facilitated by advances in endoscopic surgical techniques (and a few brave souls willing to push the envelope). Dierckman and Guanche<sup>1</sup> published the first description of a safe, effective technique for treating hamstring pathology endoscopically; this was followed by other descriptions of similar techniques, employed in the treatment of partial- and full-thickness hamstring tendon tears. Since this initial description, variations on the technique have been presented for full-thickness and partial-thickness hamstring tears.<sup>2-5</sup>

In the study “Endoscopic Hamstring Repair Is Safe and Efficacious With High Patient Satisfaction at Minimum 2-Year Follow-Up,”<sup>6</sup> the authors report on the outcomes of patients with proximal hamstring pathology treated

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with endoscopic repair with a minimum 2-year follow-up. The pathologies treated ranged from acute nonretracted (<2 cm) tears to partial-thickness tears and tendinosis, with the vast majority (83%) presenting with chronic symptoms, with an average duration of almost 3 years prior to surgical intervention. They present overall positive outcomes from endoscopic repair, with a 90% satisfaction rate; 73% of patients report complete resolution of pain; 100% of patients are able to return to work; and an average Single Assessment Numeric Evaluation (SANE) score is 79%. At least as important, however, is the reported complication rate of 3% (1/30 patients), which was a rerupture; there were no neurologic or wound complications reported.

We have come a long way in arthroscopic surgery since the time when Rockwood<sup>7</sup> penned an editorial referring to the arthroscope as the “tool of the devil,” wondering why one would want to look through a “keyhole” when one could “open the door”; now the idea of open surgery on a thrower’s shoulder is an anathema. Likewise, when Ganz et al.<sup>8</sup> proposed femoroacetabular impingement as a cause for hip osteoarthritis, open surgical dislocation was the only game in town; now we treat even complex patterns of impingement through “keyholes,” with lower complication rates and less morbidity than could be achieved with open surgery. This shift has echoes that reverberate throughout the world of hip preservation, with endoscopic techniques now being applied successfully to the treatment of gluteus medius pathology, deep gluteal space syndrome, and proximal hamstring pathology. The results reported by Fletcher et al.<sup>6</sup> should give confidence to any hip surgeon who treats hamstring pathology endoscopically and inspiration to those still waiting to take the plunge. From my own experience with this procedure, I can say that

although the early stages of learning are somewhat nerve-wracking (“what if I damage the sciatic nerve?” and “what if I can’t tell what I’m looking at?”), with time and attention to detail, it can become like any other minimally invasive hip preservation surgery: safe, routine, and effective.

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