

# Editorial Commentary: Iliopsoas Tenotomy for Pain After Total Hip: A Great Operation *IF* the Diagnosis Is Right



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**Abstract:** Iliopsoas tendon pain can be a frustrating condition for both patients and surgeons after total hip arthroplasty. It is difficult to diagnose definitively, as there is no imaging modality that offers reliable information and there are numerous causes of persistent groin pain in this patient population. The pain can ruin the results of an otherwise well-functioning total hip arthroplasty. Patients who respond best to arthroscopic iliopsoas tenotomy are those with isolated pain with hip flexion activities and reproducible pain with resisted hip flexion on examination or other provocative iliopsoas maneuvers. Patients with these symptoms in addition to more generalized pain findings (pain with weight-bearing, pain at night, pain with passive range of motion) tend not to respond as favorably to isolated iliopsoas tenotomy. In addition, optimal treatment for refractory cases has been controversial historically, as both acetabular component revision and iliopsoas tendon lengthening have been advocated. With the ever-increasing popularity of hip arthroscopy and recent clinical outcome reports, arthroscopic (or endoscopic) iliopsoas tenotomy has proven to be a very safe and effective treatment option for these patients, with one caveat: the diagnosis must be correct.

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As successful as total hip arthroplasty (THA) has been in recent decades for the treatment of numerous pathologies of the hip joint, there are still many patients who will have debilitating pain after surgery. The causes of this persistent pain are numerous, but one possibility is iliopsoas tendon impingement, which may affect up to 6% of patients<sup>1</sup> and is associated with prominence of the acetabular component.<sup>2</sup> Historically, treatment of refractory cases has centered on acetabular component revision or open iliopsoas tenotomy.<sup>3-5</sup> However, advances in hip arthroscopy and recent reports in the literature,<sup>6,7</sup> including “Endoscopic Tenotomy for Iliopsoas Tendinopathy Following Total Hip Arthroplasty Can Relieve Pain Regardless of Acetabular Cup Overhang or Anteversion” by Viamont-Guerra, Ramos-Pascual, Saffarini, and Bonin,<sup>8</sup> suggest that arthroscopic (or endoscopic) iliopsoas release can offer similar outcomes with lower

complication rates. On the strength of these reports, as well as my own clinical experience, I think it is safe to say that minimally invasive iliopsoas tendon release has become the treatment of choice for these patients.

As with any surgery we perform, the outcomes of iliopsoas tenotomy are largely dependent on proper patient selection. As noted by nearly every author who has written on this subject, there are numerous causes of persistent pain after THA, including infection, aseptic loosening, metallosis, referred pain, periprosthetic fracture, instability, and others. Arriving at a definitive diagnosis of iliopsoas impingement requires a keen clinical sense and a little time to extract a proper history and physical examination of the patient, as well as the careful elimination of other sources of pain. There are no reliable diagnostic tests for post-THA iliopsoas impingement, as the results of imaging and diagnostic injections are quite inconsistent in this setting. As Viamont-Guerra, et al.<sup>8</sup> note, the diagnosis is “mostly based on clinical symptoms.”

In my experience, the patients who respond best to arthroscopic iliopsoas tenotomy are those with isolated pain with hip flexion activities (getting in and out of bed, car, bathtub, etc.) and reproducible pain with resisted hip flexion on exam or other provocative iliopsoas

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maneuvers. Patients with these symptoms *in addition to* more generalized pain findings (pain with weightbearing, pain at night, pain with passive range of motion) tend not to respond as favorably to isolated iliopsoas tenotomy. In the current study, only 2 of 50 hips had reoperations due to incorrect preoperative diagnosis or failure to respond to iliopsoas tenotomy.<sup>8</sup> These surgeons should be applauded on their patient selection.

There are still several unknowns regarding iliopsoas tenotomy for pain after THA. The first is whether there is a threshold for acetabular component overhang above which iliopsoas tenotomy will not be successful. Previous studies have suggested this to be >8 mm,<sup>5</sup> but Viamont-Guerra et al.<sup>8</sup> found no correlation between clinical outcomes and cup overhang, with maximum overhang up to 20 mm, suggesting that iliopsoas tenotomy should be a first-line treatment for refractory cases regardless of the amount of overhang noted on imaging.

The other unknowns are related to surgical technique—arthroscopic versus endoscopic, and at what level should the tenotomy be performed? Viamont-Guerra, et al.<sup>8</sup> present good results with an endoscopic technique releasing the tendon in its midsubstance, but others have described endoscopic release at the lesser trochanter and arthroscopic release at the acetabular rim.<sup>6,9-12</sup> My preference currently is to perform an arthroscopic release at the acetabular rim. This gives the surgeon the opportunity to evaluate the bearing surfaces and treat the iliopsoas directly at the site of pathology, but also comes with the risk of iatrogenic damage to the components. I will be eager to see more clinical outcomes reports after different tenotomy techniques, so we can determine the best operation for these patients.

In the end, minimally invasive iliopsoas tenotomy should be considered the first-line surgical treatment for refractory iliopsoas pain after THA. Good outcomes can be expected and have been reported using several different surgical techniques. However, it is important to remember that good surgical outcomes are predicated on making the right diagnosis preoperatively.

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