



“Functional” Trigger Point Injections for Male Ballet Dancer: A Case Report



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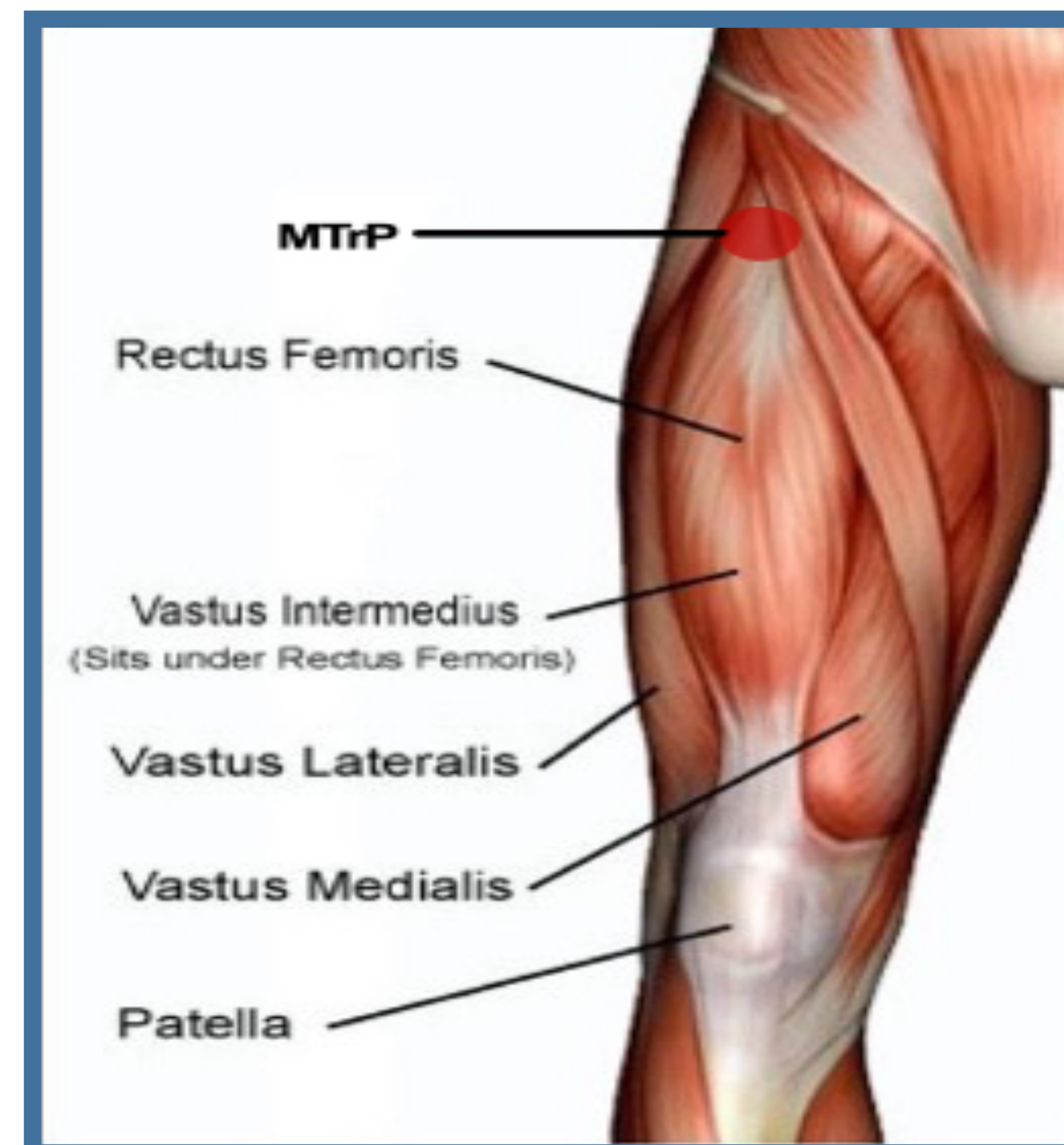
Case Diagnosis

A 55-year-old male ballet dancer presents with:

- Pain located in the right anterolateral quadriceps muscle for four months.
- Pain is aggravated when he dances ballet and performs specific movements (i.e. Rond de Jambe).
- The patient is diagnosed with a Myofascial Trigger Point (MTrP) of the right quadriceps tendon.



An illustration of a Rond de Jambe in classical ballet



Location of TPI

Injection #	Pain Scale (using 10 cm VAS)	Percent Improvement
Pre-Injection	9.4	-
1 st Injection	7.3	22%
2 nd Injection	5.8	38%
3 rd Injection	3.9	59%
4 th Injection	1.6	83%

Discussion

- MTrPs are areas of focal tenderness within skeletal muscle that are associated with a hypersensitive palpable nodule or taut band in which trigger point injections (TPIs) are a common treatment.
- Studies have reported a reduction of pain ranging from 53%-73%.^{*}
 - *Vargo-Schaffer G, Nowakowski M, Eghesali M, et al.: Ultrasound-guided trigger point injection for serratus anterior muscle pain syndrome: description of technique and case series. *A Case Rep* 2015 Sep 15;5(9):99-102
 - *Lee CY, Kim EJ, Hwang DG, et al.: The effect of trigger point injections on pain in patients with advanced cancer. *Korean J Pain Med* 2019 Sep;40(3):344-347
 - *Kim DS, Jeong TY, Kim YK, et al.: Usefulness of a myofascial trigger point injection for groin pain in patients with chronic prostatitis/chronic pelvic pain syndrome: a pilot study. *Arch Phys Med Rehabil* 2013 May;94(5):930-6
 - *Parthasarathy S, Sundar S, Mishra G: Assessment of predisposing factors in myofascial pain syndrome and the analgesic effect of trigger point injections - A primary therapeutic interventional clinical trial. *Indian J Anaesth* 2019 Apr;53(4):300-303
 - *Langford GJ, Usmani Nagay S, Ghoniem GM: Levator ani trigger point injections: An underutilized treatment for chronic pelvic pain. *NeuroRehabil* 2007;26(3):159-62
- Traditionally, the patient is in a neutral seated, prone, or supine position.
- **Here we describe a novel approach to TPIs in which the patient holds the position that provokes the most pain while the injection is given. Following a series of “functional” TPIs, the patient reported an 83% overall pain reduction using a VAS.**

Conclusion

This case report describes a modified treatment approach to the traditional trigger point injection (TPI) to improve the efficacy of the procedure.

By placing the patient in an active position that yields the greatest level of discomfort during the TPI treatment, we have achieved greater pain relief relative to traditional neutral positioning of the patient.

Treatment Description

- The patient used the exam table to simulate a ballet barre, and began to complete the Rond de Jambe.
- Upon reaching the specific position that invoked the most pain, he held the position while the injection was given.
- 2.5cc of 1% lidocaine and 2.5cc of 0.25% bupivacaine were injected into the tendon of the rectus femoris muscle.
- After four injections given over the course of three months, the patient was able to achieve an **83% reduction in pain** on a visual analog scale (VAS).