

Utilization and Repeat Procedure Rates of Pelvic Floor Trigger Point Injections for Chronic Pelvic Pain

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BACKGROUND

Chronic pelvic pain (CPP) is a complex and often refractory pain condition that frequently requires multimodal management, including pharmacologic therapy, pelvic floor physical therapy, behavioral interventions, and image-guided or palpation-guided procedures.

- Myofascial pelvic pain is a common contributor to CPP and may involve both pelvic floor and extra-pelvic musculature.
- Pelvic floor trigger point injections (TPIs) are commonly incorporated into treatment plans for patients with suspected myofascial pain generators.
- Limited data exist regarding repeated TPI usage, common muscular targets, and integration into broader interventional pain management strategies.
- Characterizing such patterns may inform procedural treatment algorithms and guide future comparative effectiveness studies.

MATERIALS & METHODS

Following Rutgers University Institutional Review Board approval (Pro2026001527), a retrospective cohort study was conducted using a clinical registry of adult patients evaluated for chronic pelvic pain at a tertiary referral pain center.

- Patients who underwent at least one pelvic floor trigger point injection during the study period were included.
- Demographic characteristics, pelvic pain diagnoses, and procedural data were extracted from the electronic medical record.
- Procedural variables included injection laterality and total number of trigger point injections performed.
- Descriptive statistics summarized patient characteristics, procedural utilization, repeat procedure rates, average number of TPIs per patient, and muscles injected.

RESULTS

A total of 81 patients met inclusion criteria during the study period. The mean age was 47.7 years, and 75% of patients were female. Across the cohort, 150 pelvic floor TPIs were performed, corresponding to a repeat utilization ratio of 1.85 TPIs per patient. Overall, 41 patients, or 50.6%, underwent a single TPI, while 40 patients, or 49.4%, underwent repeat injections over the course of treatment. Among patients who received repeat TPIs, the majority underwent a limited repeat treatment course: 85.0% received 2–3 total injections, while 15.0% received 4 or more injections. The maximum number of TPIs performed in a single patient was 5.

TPIs were performed bilaterally in 33.5% of procedures, suggesting that a substantial subset of patients had bilateral or diffuse myofascial pain involvement. Repeat procedures were frequently incorporated into multimodal interventional treatment plans rather than used as isolated therapy. Among patients undergoing subsequent injections, the average interval between TPIs was 66.7 days.

The most frequently targeted muscles can be seen in Figure 1a and Figure 1b.

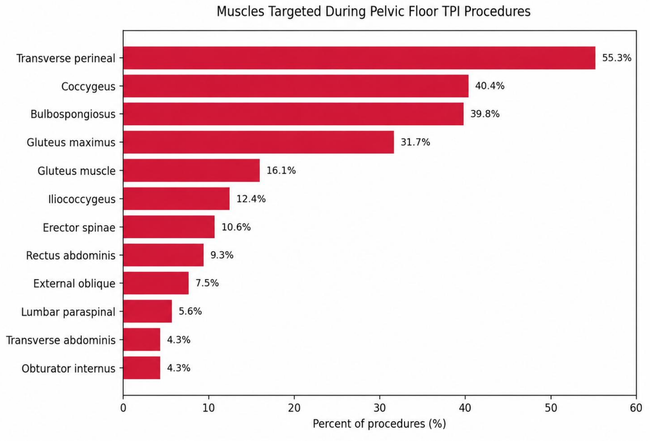


Figure 1a. Most frequently targeted muscles during TPI procedures. All remaining muscle groups were targeted in fewer than 4% of procedures. Because multiple muscles could be injected during a single procedure, muscle-specific percentages exceed 100%.

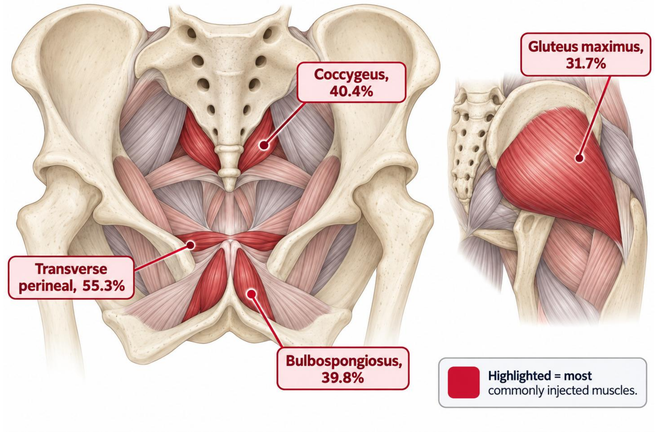


Figure 1b. Simplified pelvic floor/gluteal anatomy highlighting common muscular targets of trigger point injections.

DISCUSSION

In this cohort of patients undergoing pelvic floor TPIs for chronic pelvic pain, repeat injection utilization was common, with nearly half of patients receiving more than one procedure.

- Most repeat treatment courses consisted of 2–3 injections, which suggests thatTPIs are frequently used as a short procedural series rather than as a single intervention alone.
- The predominance of transverse perineal, coccygeus, and bulbospongiosus injections reflects the importance of pelvic floor myofascial pain generators in CPP.
- Frequent targeting of gluteal, abdominal, and paraspinal muscles highlights the broader regional nature of pelvic pain syndromes.
- Findings support evaluating both pelvic and extra-pelvic myofascial contributors when treating patients with CPP.
- Future studies should examine sustained pain reduction, improved function, medication use, and optimal timing/frequency of repeated TPIs.

REFERENCES

Lamvu G, Carrillo J, Ouyang C, Rapkin A. Chronic pelvic pain in women: a review. JAMA. 2021;325(23):2381-2391. doi:10.1001/jama.2021.2631.

ACOG Practice Bulletin No. 218: Chronic pelvic pain. Obstet Gynecol. 2020;135(3):e98-e109. doi:10.1097/AOG.0000000000003716.

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