

Physiotherapy Management of De Quervain Tenosynovitis in a Postpartum Woman: A Case Report

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Abstract

Background: De Quervain tenosynovitis is characterized by pain on the radial aspect of the wrist and may interfere with daily activities involving repetitive thumb and wrist movements. This case report describes the assessment, multimodal physiotherapy management, and early clinical response of a postpartum woman with left-sided De Quervain tenosynovitis.

Case Presentation: A postpartum woman with pain at the base of the left thumb underwent two physiotherapy visits. Clinical examination showed positive Finkelstein, Eichhoff, and Wrist Hyperflexion and Abduction of the Thumb (WHAT) tests. The intervention included infrared rays, transcutaneous electrical nerve stimulation, ultrasound, myofascial release, hold-relax exercise, progressive strengthening exercises, ergonomic education, and a home program.

Results: During the first visit, pain during movement decreased from 6 to 5 on the Visual Analogue Scale (VAS) immediately after the session. At the second visit, the VAS score for pain during movement was 4 before and remained 4 after the intervention. All three provocative tests remained positive. The patient reported slightly less pain and improved ability to open a bottle without significant discomfort. No adverse events were documented during the two sessions.

Conclusion: Multimodal physiotherapy was accompanied by early changes in pain and patient-reported activity during two visits. However, the short observation period, concurrent use of multiple interventions, and incomplete repeated outcome assessment preclude causal conclusions regarding treatment effectiveness or structural tendon changes.

Keywords

De Quervain Disease; Postpartum Period; Physical Therapy Modalities; Pain

Introduction

De Quervain tenosynovitis is a condition affecting the first dorsal extensor compartment of the wrist, involving the tendons of the *abductor pollicis longus* (APL) and *extensor pollicis brevis* (EPB). It is commonly characterized by pain over the radial aspect of the wrist, particularly during thumb movement and activities involving loading or repetitive use of the thumb and wrist.¹ Although the underlying pathophysiology remains a subject of discussion, inflammatory and degenerative changes within the tendon sheath have both been described.¹ In this report, De Quervain tenosynovitis is used consistently as the primary diagnostic term, while alternative pathological descriptions are used only when relevant to the interpretation of the condition.

De Quervain tenosynovitis occurs more frequently in women during pregnancy and the postpartum period.^{2,3} Population based evidence has reported an increased occurrence of hand and wrist soft tissue conditions during pregnancy and postpartum, while studies specifically involving postpartum women have identified factors associated with De Quervain tenosynovitis.^{2,3} This context is clinically relevant to the present case because the patient was a postpartum woman caring for a 6 month old infant. Repetitive hand and wrist activities associated with infant care may contribute to mechanical loading of the thumb and wrist and may be associated with symptom provocation in this population.^{2,3}

The first dorsal compartment may also exhibit anatomical variations, including differences in tendon number and the presence of intercompartmental septa, which may contribute to heterogeneity in clinical presentation and treatment response.⁴ However, the clinical consequences of De Quervain tenosynovitis extend beyond anatomical findings. Radial wrist and thumb pain may interfere with everyday activities requiring gripping, lifting, or sustained hand use.⁵ In postpartum women, such limitations may be particularly relevant because routine activities, including carrying and caring for an infant, can require repeated thumb and wrist movements.³

The diagnosis of De Quervain tenosynovitis is primarily based on clinical history and physical examination.⁶ Provocative maneuvers such as the Finkelstein test, Eichhoff test, and Wrist Hyperflexion and Abduction of the Thumb (WHAT) test may support the clinical diagnosis by reproducing symptoms in the region of the first dorsal compartment.^{7,8} Nevertheless, positive provocative tests should not be interpreted as independently establishing a definitive diagnosis.⁷ Other conditions may present with pain in the radial aspect of the wrist or thumb and should be considered according to the overall clinical presentation.⁶ Relevant differential diagnoses include first carpometacarpal osteoarthritis, trigger thumb, Wartenberg syndrome, intersection syndrome, and other disorders affecting the radial wrist region.^{6,9-11} Therefore, the findings in this case are interpreted as supporting a clinical diagnosis rather than definitively excluding all alternative diagnoses.

Conservative management of De Quervain tenosynovitis may involve several approaches, including physical modalities, therapeutic exercise, manual therapy, orthoses, activity modification, and medical interventions.¹²⁻¹⁵ However, the available evidence varies according to the intervention, study population, treatment parameters, and outcome measures used.¹² Consequently, evidence supporting one modality cannot be assumed to demonstrate the effectiveness of another modality or of a multimodal treatment program. This distinction is particularly important in the present case because infrared rays, rather than therapeutic laser, were used

as part of the intervention. Therefore, evidence concerning laser based interventions should not be directly extrapolated to explain the response observed after conventional infrared treatment.¹⁶

A multimodal physiotherapy approach may be used in clinical practice to address pain, activity related symptoms, and physical impairments associated with De Quervain tenosynovitis. Nevertheless, when multiple interventions are delivered concurrently, the contribution of each component cannot be isolated from the overall clinical response. Similarly, early changes in pain observed over a limited number of visits should not be interpreted as evidence of treatment effectiveness. Careful reporting of baseline findings, intervention parameters, repeated outcomes, and patient reported changes is therefore important to support transparent clinical interpretation.

Although De Quervain tenosynovitis is recognized in postpartum women, detailed clinical documentation describing physiotherapy assessment, intervention parameters, and early responses during routine physiotherapy practice in Indonesia remains limited. The contribution of the present report is not to establish the effectiveness of a particular intervention, but to provide a detailed clinical description of assessment and multimodal physiotherapy management in a postpartum patient. The case also documents the pattern of pain scores and provocative test findings across two visits, including outcomes that remained unchanged or were not reassessed.

Accordingly, this case report aims to describe the clinical assessment and multimodal physiotherapy management of a postpartum woman with left sided De Quervain tenosynovitis and to report the early clinical changes observed during two physiotherapy visits. The report focuses on documented changes in pain, provocative test findings, and patient reported activity, while acknowledging the limited duration of observation and the inability to determine causal treatment effects.

Methods

This case report was based on clinical documentation obtained during routine physiotherapy care for a single patient during a professional physiotherapy placement. The report was prepared using the CARE framework to support transparent and complete case reporting. However, only information documented during routine care was included, and missing information was not reconstructed retrospectively.¹⁷ The design was selected because the first author was involved in the clinical documentation of a patient presenting with radial wrist and thumb pain during the postpartum period. The purpose of the report was descriptive and was not to evaluate treatment efficacy.

The case was selected based on the following clinical characteristics: a postpartum woman with pain involving the radial aspect of the wrist and the base of the thumb, clinical findings supporting De Quervain tenosynovitis, and sufficient documentation of history taking, physical examination, intervention, and early follow up. Case selection did not involve population sampling and was not intended to represent a broader patient population. The patient had previously experienced similar symptoms in the right thumb several months before the current presentation; however, these symptoms had resolved before the first visit for the present left-sided complaint.

The clinical diagnosis was established from the patient's history, physical examination, and provocative testing. No diagnostic imaging, including radiography, musculoskeletal ultrasound, or magnetic resonance imaging, was performed. Therefore, the diagnosis was interpreted as a clinical diagnosis supported by the available findings, and alternative diagnoses could not be definitively excluded. The initial assessment and follow up examination were performed by the first author, a student in the Professional Physiotherapy Program at Hasanuddin University, under direct supervision by the clinical physiotherapist, who was the third author. The clinical diagnosis and management were reviewed within this supervised clinical process.

The primary outcome was pain intensity measured using the Visual Analogue Scale (VAS) during rest, movement, and palpation. Secondary outcomes included muscle strength assessed using Manual Muscle Testing (MMT), basic movement examination of the wrist and thumb, and the results of the Finkelstein, Eichhoff, and Wrist Hyperflexion and Abduction of the Thumb (WHAT) tests. Functional ability was assessed descriptively through clinical observation and an activity-oriented task involving opening a bottle. No validated patient-reported functional outcome measure was administered. Therefore, functional observations were used to describe the patient's clinical presentation and were not interpreted as standardized quantitative changes.

The initial assessment included subjective examination, static and dynamic inspection, palpation, active and passive basic movement examination of the wrist and thumb, isometric testing against resistance, MMT of the *abductor pollicis longus* and *extensor pollicis brevis*, and VAS assessment. The Finkelstein, Eichhoff, and WHAT tests were performed as part of the clinical examination supporting the diagnosis. The same examiner conducted the assessments during both visits under direct clinical supervision to reduce potential inter-examiner variation. Formal reliability testing of the examination procedures was not performed.

Physiotherapy was delivered during two individual visits on November 24 and November 27, 2025, at Emphysio Clinic, Makassar, Indonesia. All interventions were provided by the first author under direct supervision of the clinical physiotherapist. The multimodal intervention consisted of infrared rays, transcutaneous electrical nerve stimulation (TENS), ultrasound, myofascial release, hold-relax exercise, strengthening exercises, ergonomic education, and a home program.

Infrared rays were applied locally over the radial styloid region for 10 minutes at an approximate distance of 35 cm from the skin. TENS was administered for 15 minutes using a frequency of 100 Hz, an intensity of 24 mA, and continuous mode. The electrodes were positioned side to side over the radial styloid region and the first dorsal compartment. Ultrasound was applied to the radial styloid region using a circular technique for 7 minutes at 3 MHz and 1 W/cm², in pulsed mode with a 50% duty cycle and an effective radiating area of 5 cm².

Myofascial release was performed over the lower forearm region involving the APL and EPB for 15 minutes, with the recorded pressure described as approximately 30%. Hold-relax exercise was performed for 5 to 10 repetitions over 10 minutes. Strengthening exercises consisted of wrist flexion and extension using a dumbbell, grip strengthening, and wrist radial and ulnar deviation strengthening. Each strengthening exercise was performed at the documented dose of 5 repetitions × 15 counts over 10 minutes. The dumbbell load for wrist flexion and extension was increased from 1 kg during the first visit to 2 kg during the second visit. According to the clinical documentation, progression was made after the patient was able to complete the exercise during the first visit and reported a lighter pain response at the subsequent visit. The patient also received ergonomic education regarding infant carrying and a home program. Adherence to the home program was not assessed systematically. Details that were not documented, including the patient's exact position, detailed movement direction, and specific verbal instructions for some manual and exercise procedures, were not added retrospectively.

Outcome evaluation during the first visit was performed immediately before and after the intervention using the VAS. At the second visit, VAS scores for pain at rest, during movement, and during palpation were recorded before and after treatment. The Finkelstein, Eichhoff, and WHAT tests were also repeated to document the consistency of clinical findings over time. MMT and basic

movement examination were not repeated systematically during the second visit; therefore, changes in muscle strength and range of movement could not be evaluated. No formal statistical analysis was performed because this was a descriptive single-case report with a limited number of observations.

This report used data obtained during routine physiotherapy care, and no additional procedures or interventions were introduced specifically for research purposes. Patient consent for the use of anonymized clinical information and publication of the case report was obtained. Based on the available documentation, no ethical approval, exemption, waiver, or formal institutional determination was available for inclusion in the manuscript. Accordingly, this report does not state that ethical review was categorically unnecessary. Formal confirmation of the ethical review status from the responsible institution or clinic should be obtained before publication if required by the target journal.

Results

The clinical findings were documented over two physiotherapy visits conducted on November 24 and November 27, 2025. The available data included pain intensity measured using the Visual Analogue Scale (VAS), findings from provocative tests, muscle strength assessed at the initial visit, basic movement examination, and patient-reported changes in daily activities. Because several outcomes were not reassessed systematically during the second visit, the results are presented descriptively and according to the information available in the clinical record.

At the initial visit, the patient reported pain at the base of the left thumb that was aggravated by activities involving thumb and wrist movement, particularly carrying her infant, gripping objects, and opening a bottle. The VAS score for pain during movement was 6, whereas pain at rest and pain during palpation were both recorded as 0. Manual Muscle Testing (MMT) showed a grade of 4 for both the *abductor pollicis longus* (APL) and *extensor pollicis brevis* (EPB). The Finkelstein, Eichhoff, and Wrist Hyperflexion and Abduction of the Thumb (WHAT) tests were positive.

Basic movement examination of the wrist and thumb showed no documented limitation in active or passive range of motion. Wrist flexion, extension, radial deviation, and ulnar deviation were recorded within the available full range of motion. Thumb flexion, extension, abduction, adduction, and opposition were also completed through the available range, with normal end-feel documented during passive examination. However, pain during movement was reported, particularly during ulnar deviation of the wrist and thumb flexion and abduction. Thus, the initial clinical presentation demonstrated pain-related impairment despite the absence of documented range-of-motion restriction.

The temporal sequence of symptoms, assessment findings, and follow-up results is summarized in Table 1. The table provides an overview of the short observation period and clarifies which outcomes were reassessed during the second visit.

Table 1. Clinical Timeline and Key Findings

Time point	Clinical findings and events
Several months before the current episode	The patient had experienced similar symptoms involving the right thumb, which had resolved before the current presentation.
Approximately 2 weeks before the first visit	Pain developed at the base of the left thumb and was aggravated by carrying the infant, gripping, and opening a bottle.
November 24, 2025, Visit 1	VAS pain during movement was 6 before treatment and 5 immediately after treatment. VAS pain at rest and during palpation were 0. MMT grade was 4 for APL and EPB. Finkelstein, Eichhoff, and WHAT tests were positive.
November 27, 2025, Visit 2	VAS pain during movement was 4 before treatment and remained 4 immediately after treatment. VAS pain at rest and during palpation remained 0. Finkelstein, Eichhoff, and WHAT tests remained positive. MMT and basic movement examination were not systematically reassessed.

Abbreviations: APL, *abductor pollicis longus*; EPB, *extensor pollicis brevis*; MMT, Manual Muscle Testing; VAS, Visual Analogue Scale; WHAT, Wrist Hyperflexion and Abduction of the Thumb.

Following the first physiotherapy session, the VAS score for pain during movement decreased from 6 before treatment to 5 immediately after treatment. During the second visit, conducted three days later, the VAS score for pain during movement was 4 before treatment and remained 4 immediately after the session. Pain at rest and pain during palpation remained 0 at all documented time points. The pattern of VAS measurements is presented in Table 2 to distinguish changes between visits from immediate pre- and post-session measurements.

Table 2. Pain Intensity Across the Two Physiotherapy Visits

Outcome	Pre-Visit 1	Post-Visit 1	Pre-Visit 2	Post-Visit 2
VAS pain at rest	0	0	0	0
VAS pain during movement	6	5	4	4
VAS pain during palpation	0	0	0	0

Abbreviation: VAS, Visual Analogue Scale.

The VAS findings indicate a one-point decrease immediately after the first session. At the second visit, the pre-treatment movement-related pain score was lower than the initial pre-treatment score, although no further immediate change was recorded after the second session. Given the short observation period and the descriptive design of this case report, these findings are presented as observed clinical changes and are not interpreted as evidence of a causal treatment effect.

The Finkelstein, Eichhoff, and WHAT tests remained positive during the second visit. The patient verbally reported that pain associated with the affected area felt slightly less intense than during the first visit; however, the intensity of pain provoked by each test was not quantified separately. Therefore, this observation is reported as a subjective patient statement and should not be interpreted as a quantitative change in the provocative test outcomes.

The patient also reported an improvement in the ability to open a bottle, describing no significant discomfort during this activity at the second visit. This finding was based on the patient's verbal report and was not evaluated using a validated functional outcome measure. Similarly, no standardized reassessment of muscle strength or basic movement was performed during the second visit. Consequently, changes in MMT grades and range of motion could not be determined from the available data.

The intervention parameters applied during both visits are summarized in Table 3 to provide a transparent description of the multimodal management. The table distinguishes the number of sessions, device parameters or exercise dosage, technique, and duration.

Table 3. Documented Physiotherapy Intervention Parameters

Intervention	Sessions	Parameters or dosage	Technique or application	Duration
Infrared rays	2	Approximately 35 cm from the skin	Local application over the radial styloid region	10 min
TENS	2	100 Hz, 24 mA, continuous mode	Side-to-side electrode placement over the radial styloid and first dorsal compartment	15 min
Ultrasound	2	3 MHz, 1 W/cm ² , pulsed mode, 50% duty cycle, effective radiating area 5 cm ²	Circular application over the radial styloid region	7 min
Myofascial release	2	Approximately 30% recorded pressure	Lower forearm region involving APL and EPB	15 min
Hold-relax exercise	2	5 to 10 repetitions	Detailed procedure not available in the clinical record	10 min
Wrist flexion and extension strengthening	2	5 repetitions × 15 counts; 1 kg at Visit 1 and 2 kg at Visit 2	Progressive dumbbell exercise	10 min
Grip strengthening	2	5 repetitions × 15 counts	Detailed procedure not available in the clinical record	10 min
Wrist radial and ulnar deviation strengthening	2	5 repetitions × 15 counts	Detailed procedure not available in the clinical record	10 min

Abbreviations: APL, *abductor pollicis longus*; EPB, *extensor pollicis brevis*; TENS, transcutaneous electrical nerve stimulation.

No adverse events were documented during either physiotherapy visit. However, the observation period was limited to two sessions over three days. Therefore, the available data do not allow conclusions regarding longer-term safety, sustained symptom changes, or functional outcomes.

During the second visit, the patient verbally reported that the pain in the left thumb felt slightly less severe than at the initial visit. She also reported being able to open a bottle without significant discomfort. This perspective was obtained during routine clinical care and was not collected through a structured interview or validated questionnaire. It is therefore presented as supplementary descriptive information rather than as a standardized patient-reported outcome.

Discussion

This case report describes the early clinical observations of a postpartum woman with left-sided De Quervain tenosynovitis who received multimodal physiotherapy during two visits over a three-day period. The principal measured finding was a change in movement-related pain, with the Visual Analogue Scale (VAS) score decreasing from 6 before the first session to 5 immediately afterward. At the second visit, the pre-treatment score was 4 and remained 4 immediately after the session. In addition, the Finkelstein, Eichhoff, and Wrist Hyperflexion and Abduction of the Thumb (WHAT) tests remained positive. The patient nevertheless reported subjectively that the pain felt slightly less severe and that she was able to open a bottle without significant discomfort. Because the observation period was brief and multiple interventions were administered concurrently, these findings should be interpreted as early clinical observations rather than evidence of treatment effectiveness.

The one-point decrease in movement-related pain immediately after the first session represents a small numerical change. Its clinical importance cannot be determined from this case because no predefined threshold for clinically meaningful change was applied, and the report did not include repeated observations over a longer follow-up period. The lower pre-treatment VAS score at the second visit, from 6 at the initial assessment to 4 three days later, may indicate a change in symptom intensity over time; however, this difference cannot be attributed to the physiotherapy intervention alone. Natural symptom variation, changes in daily activity, modification of mechanical loading, spontaneous improvement, and other unmeasured factors may also have contributed. Therefore, the observed pattern should not be interpreted as establishing a causal relationship between the intervention and pain reduction.

The persistence of positive Finkelstein, Eichhoff, and WHAT tests at the second visit provides additional context for interpreting the VAS findings. Although the patient reported that the provoked pain felt less intense, the intensity associated with each test was not measured quantitatively. Consequently, the provocative test results remained qualitatively positive, and no numerical comparison of test-related pain could be made between visits. This apparent difference between the patient's subjective perception and the documented examination findings illustrates the importance of distinguishing between measured outcomes, clinical test results, and patient-reported experiences. A positive provocative test does not, by itself, indicate the magnitude of pain or establish whether a clinically meaningful change has occurred.

The postpartum context is also relevant to this case. Previous studies have reported the occurrence of hand and wrist soft tissue conditions, including De Quervain tenosynovitis, during pregnancy and the postpartum period.^{2,3} The patient's symptoms were aggravated during activities such as carrying her infant, gripping, and opening a bottle, suggesting that routine loading of the thumb and wrist was relevant to her clinical presentation. However, this case cannot determine whether infant-care activities caused the condition or whether postpartum status independently influenced its development. The available evidence provides clinical context for the presentation, but the temporal association observed in a single case should not be interpreted as proof of causation.

The diagnosis in this case was based on history taking and clinical examination, including positive Finkelstein, Eichhoff, and WHAT tests.^{7,8} These findings supported the clinical diagnosis of De Quervain tenosynovitis but did not definitively exclude other causes of radial wrist and thumb pain. No radiography, musculoskeletal ultrasound, or magnetic resonance imaging was performed. Therefore, alternative diagnoses, including first carpometacarpal osteoarthritis, trigger thumb, superficial radial nerve involvement, and intersection syndrome, could not be definitively excluded.^{6,9–11} The absence of sensory symptoms such as numbness or paresthesia made superficial radial sensory nerve involvement less consistent with the reported presentation, but this observation should not be considered sufficient for definitive exclusion.¹⁰ The diagnosis should consequently be understood as a clinically supported diagnosis based on the available information.

The patient received infrared rays, transcutaneous electrical nerve stimulation, ultrasound, myofascial release, hold-relax exercise, strengthening exercises, ergonomic education, and a home program. Physical modalities and exercise-based interventions have been described as components of conservative management for wrist and hand tenosynovitis and De Quervain tenosynovitis.^{5,12,18–20} Nevertheless, the evidence supporting individual interventions differs according to the type of modality, treatment parameters, population, comparator, and outcome measures.¹² Importantly, evidence regarding therapeutic laser should not be directly extrapolated to conventional infrared rays because these modalities differ in their physical characteristics and mechanisms of application.¹⁶ Therefore, the literature is used here to contextualize the conservative management approach rather than to confirm the effectiveness of the specific infrared parameters applied in this case.

The concurrent use of several interventions represents a major limitation in interpreting the observed changes. Because all components were delivered within the same treatment sessions, the potential contribution of infrared rays, TENS, ultrasound, manual therapy, exercise, education, or the home program cannot be separated. The progression of the dumbbell load from 1 kg to 2 kg also occurred within this multimodal program, and its independent effect cannot be determined. The patient was able to complete the initial exercise dose, and the progression was based on the available clinical documentation; however, no standardized progression criterion or repeated strength assessment was available. This further limits interpretation of the exercise response.

The patient-reported ability to open a bottle without significant discomfort provides clinically relevant information regarding daily activity. However, this outcome was not assessed using a validated functional instrument, and the activity was not measured under standardized conditions. Similarly, Manual Muscle Testing and basic movement examination were not systematically repeated at the second visit. Consequently, it cannot be concluded that muscle strength or range of motion improved during the intervention period. The absence of repeated standardized functional measurements highlights an important methodological limitation and supports the use of validated outcome measures in future reports or clinical studies.¹⁷

Current evidence indicates that conservative management options for De Quervain tenosynovitis may include different combinations of interventions, with varying levels of evidence supporting each approach.^{13–15} However, most evidence evaluating treatment effectiveness involves study designs and follow-up periods that differ substantially from the present case.¹² The two-visit observation period in this report is insufficient to assess sustained symptom change, recurrence, longer-term functional outcomes, or treatment durability. Therefore, comparisons with intervention studies should remain contextual rather than being interpreted as direct confirmation of the response observed in this patient.

This case report has several additional limitations. First, it involved only one patient and cannot provide evidence of general effectiveness. Second, the observation period was limited to three days and two treatment sessions. Third, no imaging was performed, and the diagnosis remained clinical. Fourth, several outcomes, including MMT and basic movement examination, were not reassessed. Fifth, functional changes were based on descriptive patient reports rather than validated outcome measures. Sixth, adherence to the home program was not systematically monitored. Finally, some procedural details, including exact patient positioning and specific movement instructions for certain interventions, were not available in the original clinical documentation and therefore could not be fully described.

Despite these limitations, the case provides a transparent description of the available clinical findings, intervention parameters, and early observations during routine physiotherapy care. The main contribution of this report is descriptive rather than confirmatory. It demonstrates the importance of separating objectively measured changes from subjective patient reports and from outcomes that were not reassessed. For future case reports and clinical studies, longer follow-up, repeated standardized outcome assessment, validated functional instruments, systematic monitoring of home-program adherence, and more detailed documentation of intervention procedures would strengthen clinical interpretation and reproducibility.

In conclusion, the observed changes during two physiotherapy visits do not establish the effectiveness of multimodal physiotherapy for De Quervain tenosynovitis. The decrease in movement-related VAS scores and the patient's report of improved activity occurred during a short period in which multiple interventions were delivered simultaneously, while provocative tests remained positive and several outcomes were not reassessed. These findings should therefore be interpreted cautiously as early clinical observations. More rigorous studies with larger samples, standardized interventions, appropriate comparison groups, and longer follow-up are needed to evaluate the effectiveness of individual and multimodal physiotherapy approaches for De Quervain tenosynovitis.¹²

Conclusion

This case report describes the early clinical observations of a postpartum woman with left-sided De Quervain tenosynovitis who received multimodal physiotherapy over two visits within a three-day period. Movement-related pain decreased from a VAS score of 6 before the first session to 5 immediately afterward. At the second visit, the pre-treatment VAS score was 4 and remained unchanged after the session. Finkelstein, Eichhoff, and WHAT tests remained positive throughout the observation period, while the patient subjectively reported slightly less pain and improved ability to open a bottle without significant discomfort.

These findings should be interpreted cautiously. The short observation period, single-case design, concurrent administration of multiple interventions, absence of repeated assessment for several outcomes, and lack of a standardized functional measure prevent causal conclusions regarding the effectiveness of the physiotherapy program or its individual components. The clinical diagnosis was also based on history and physical examination without imaging confirmation.

Accordingly, this report does not establish the effectiveness of multimodal physiotherapy for De Quervain tenosynovitis. Instead, it provides a descriptive account of clinical assessment, intervention parameters, and early symptom changes observed during routine physiotherapy care. Future studies should include longer follow-up periods, repeated standardized outcome measurements, validated functional instruments, detailed intervention protocols, and appropriate comparison designs to better evaluate the clinical effects of conservative physiotherapy management.

Author Contribution

Adinda Edno Triani: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing Original Draft, Writing Review and Editing.

Immanuel Maulang: Methodology, Validation, Supervision, Writing Review and Editing.

Aulia Masita: Clinical Supervision, Validation, Investigation, Resources, Writing Review and Editing.

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Conflict of Interest Statement

The authors declare that they have no competing interests.

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Ethics Statement

This case report was based on clinical information obtained during routine physiotherapy care. Written informed consent for the publication of anonymized clinical information and clinical findings was obtained from the patient. No additional procedures or interventions were performed specifically for research purposes. Patient confidentiality was maintained throughout the preparation and reporting of this case.

References

1. Fakoya AO, Tarzian M, Sabater EL, Burgos DM, Maldonado Marty GI. De Quervain's disease: a discourse on etiology, diagnosis, and treatment. *Cureus*. 2023;15(4):e38079.
2. Smith GB, Young B, Titan AL, Kenney DE, Ladd AL. Incidence and risk factors for soft tissue hand and wrist conditions in pregnancy and postpartum. *J Hand Surg Glob Online*. 2025;7(5):100778.
3. Daglan E, Morgan S, Yechezkel M, Rutenberg TF, Shemesh S, Iordache SD, et al. Risk factors associated with de Quervain tenosynovitis in postpartum women. *Hand (N Y)*. 2024;19(4):643-647.
4. Bonczar M, Walocha J, Pasternak A, Depukat P, Dziedzic M, Ostrowski P, et al. Anatomical variations in the first dorsal compartment of the wrist: meta-analysis. *Folia Morphol (Warsz)*. 2023;82(4):766-776.
5. Young SW, Young TW, MacDonald CW. Conservative management of De Quervain's tendinopathy with an orthopedic manual physical therapy approach emphasizing first CMC manipulation: a retrospective case series. *Physiother Theory Pract*. 2022;38:587-596.
6. Meier R, Spies CK, Hug U, Honigmann P, Harbrecht A, Engler C. Pain around the first ray of the hand: differential diagnoses and treatment. *Orthopade*. 2025;54(3):227-239.
7. Wu F, Rajpura A, Sandher D. Finkelstein's test is superior to Eichhoff's test in the investigation of de Quervain's disease. *J Hand Microsurg*. 2018;10(2):116-118.
8. Goubau JF, Goubau L, Van Tongel A, Van Hoonacker P, Kerckhove D, Berghs B. The wrist hyperflexion and abduction of the thumb (WHAT) test: a more specific and sensitive test to diagnose de Quervain tenosynovitis than the Eichhoff's test. *J Hand Surg Eur Vol*. 2014;39(3):286-292.
9. Ayhan E, Cevik K. Triggering thumb is not always a trigger thumb. *J Hand Surg Glob Online*. 2022;4(6):483-484.
10. Kesserwani H. Cheiralgia paresthetica or superficial radial sensory mononeuropathy: a simple diagnosis, a simple solution, and a side note on the pathophysiology of the Tinel sign. *Cureus*. 2020;12(9):e10224.
11. Naredo E, Murillo-González J, Mérida Velasco JR, Olivas Vergara O, Kalish RA, Gómez-Moreno C, et al. Examining the forearm intersection through palpation and ultrasonography. *Diagnostics (Basel)*. 2024;14(1):116.
12. Ferrara PE, Codazza S, Cerulli S, Maccauro G, Ferriero G, Ronconi G. Physical modalities for the conservative treatment of wrist and hand's tenosynovitis: a systematic review. *Semin Arthritis Rheum*. 2020;50(6):1280-1290.
13. Challoumas D, Ramasubbu R, Rooney E, Seymour-Jackson E, Putti A, Millar NL. Management of de Quervain tenosynovitis: a systematic review and network meta-analysis. *JAMA Netw Open*. 2023;6(10):e2337001.
14. Chong HH, Pradhan A, Dhingra M, Liong W, Hau MYT, Shah R. Advancements in de Quervain tenosynovitis management: a comprehensive network meta-analysis. *J Hand Surg Am*. 2024;49(6):557-569.
15. Cuenca-Zaldívar JN, Martínez-Pozas O, Riba E, Rouafi H, Ucero-Lozano R, Selva-Sarzo F, et al. Conservative treatments for De Quervain's tenosynovitis: a systematic review and network meta-analysis. *J Hand Ther*. 2026;39(3):479-495.
16. Arany PR. Photobiomodulation therapy. *JADA Found Sci*. 2025;4:100045.
17. Gagnier JJ, Kienle G, Altman DG, Moher D, Sox H, Riley D. The CARE guidelines: consensus-based clinical case report guideline development. *J Clin Epidemiol*. 2014;67(1):46-51.
18. Chongkriengkrai T, Koonalinthip N, Jongprasitkul H, Piriyaarukul A, Surarangsit T, Boonhong J. Effectiveness of high-intensity laser application combined with splinting and therapeutic exercise in subacute de Quervain's tenosynovitis: a pilot study. *Lasers Med Sci*. 2023;38(1):229.
19. Karlıbel İA, Aksoy MK, Alkan A. Paraffin bath therapy in De Quervain's tenosynovitis: a single-blind randomized controlled trial. *Int J Biometeorol*. 2021;65(8):1391-1398.
20. McBain B, Rio E, Cook J, Sanderson J, Docking S. Isometric thumb extension exercise as part of a multimodal intervention for de Quervain's syndrome: a randomised feasibility trial. *Hand Ther*. 2023;28(2):72-84.