

A Myofascial Approach for Enhancing Mobility, Flexibility, and Strength to Reduce Pain and Improve Performance in Golf and Polo: A Case Series

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Abstract

Background: The prevention and treatment of musculoskeletal pain in sports such as golf and polo require a comprehensive understanding of body biomechanics and sport-specific techniques. Key factors include mobility, flexibility, strength, and optimal core function. This case series explores the application of a myofascial-based approach to evaluating and treating musculoskeletal dysfunctions in athletes from both sports.

Methods: Seven cases (two male and two female golfers, and three male polo players) were evaluated using a myofascial approach to assess mobility, flexibility, and strength. Individualized treatment plans incorporated manual therapy techniques, breathing, stretching, and strengthening exercises to enhance these factors.

Results: All patients demonstrated significant improvements in pain reduction and sports performance. Golfers reported improved swing mechanics and reduced back pain, while polo players exhibited increased flexibility, enhanced mobility, and reduced upper limb pain.

Conclusion: This case series suggests that a myofascial approach focused on mobility, flexibility, and strength is an effective treatment for reducing pain, preventing recurrence, and enhancing athletic performance in golf and polo athletes.

Keywords: *Myofascial therapy, Sports performance, Golf, polo, Pain reduction.*

Introduction

Musculoskeletal pain and dysfunction are common among athletes due to the repetitive motions and high physical demands of sports such as golf and polo. These sports involve asymmetrical techniques that place specific strains on the body. Traditional physiotherapy often relies on analytical evaluations and generic exercise programs, which may overlook the body as an integrated system. The myofascial approach is particularly beneficial in sports with high demands for rotational movements and stability, such as golf and polo, where muscle and fascia restrictions can significantly impair performance. (1-4)

The myofascial system, a network of connective tissues surrounding muscles and joints, plays a crucial role in biomechanics, force transmission, and movement efficiency. This case series examines the effectiveness of evaluating and treating mobility, flexibility, and strength using a myofascial approach to improve performance, reduce pain, and prevent recurrence of injuries in golf and polo athletes. (5-8)

Methods

This case series includes seven athletes (two male and two female golfers, and three male polo players), ranging in age and competitive experience.

Participants included:

- Two female golfers (ages 16 and 18)
- One male golfer (age 20)
- One male golfer (age 53)
- One male polo player (age 26)
- Two male polo players (ages 46 and 50)

All participants had experience in high-performance sports. A comprehensive myofascial assessment was conducted, focusing on restrictions in mobility, flexibility, and strength.

Evaluations included:

- **Manual palpation** to identify myofascial restrictions.
- **Movement assessments** to determine asymmetries and dysfunctions.
- **Functional tests** including:
 - Kinesica Myofascial Chains Assessment (Fernando Queipo, Spain) ¹
 - Titleist Performance Institute (TPI) Certified Tests for golfers ²
 - Adapted TPI and Kinesica tests for polo players
 - Pain scale: **Numeric Rating Scale (NRS) 1-10**

Treatment Protocol:

Individualized treatment plans were developed based on each athlete's specific limitations and sport-related needs. The protocol included:

- **Myofascial release and manual therapy techniques** to address muscle and fascia restrictions.
- **Flexibility exercises** combined with proprioceptive stimuli to enhance motor patterns and joint range of motion.
- **Strengthening exercises** aimed at improving functional movement patterns, stimulating co-contraction, and preventing injuries
- **Breathing exercises** to mobilize diaphragm and thoracic area, and to work on stabilization³.
- **Postural correction techniques** and **biomechanical re-education** tailored to golf and polo-specific movements, in collaboration with their coaches.

Case Presentations

To enhance clarity, the case presentations are summarized in the following table:

Patients	History	Evaluations applied	Findings	Treatment applied	Results	Reevaluation
Male Golfer (20 years)	The patient experienced left hip pain, especially during down-swing and impact phase. Lower pain post-play. His pain limited movement sequencing, reducing swing power.	Kinesica Tests, TPI Certified Tests, NRS	Anterior and posterior myofascial restrictions, tight hip flexors, pelvic retroversion limitation.	Manual therapy, myofascial release, passive movements techniques, stretching (psoas, glutes, hamstrings, quadriceps). Strengthening and proprioceptive exercises targeting core stability and motor pattern enhancement.	Reduced pain, improved hip ROM, fluid swing mechanics. He was able to practice without pain.	Reevaluated after 4 weeks: improved hip mobility and pain reduction confirmed.
Female Golfer (18 years)	Persistent but intermittent dorsal and lower back pain, particularly during the back-swing and follow-through.	Kinesica Tests, TPI Certified Tests, NRS	Limited spine mobility, tight hamstrings, adductors, quadratus lumborum and abdominal tension.	Myofascial release and manual therapy (iliac, sacrum area), mobility exercises for pelvis/spine, stretching for anterior and posterior chains, breathing exercises to reduce abdominal tension and strengthening exercises to promote core-limb co-contraction ⁴	Pain reduction, increased swing power.	Reevaluated after 5 weeks: increased spinal mobility and swing power, pain significantly reduced confirmed.
Female Golfer (16 years)	Chronic spinal pain, impairing performance and balance during practice and tournaments.	Kinesica Tests, TPI Certified Tests, NRS	Tight iliopsoas and rectus femoris, weak core muscles, difficulty dissociating upper/lower body and significant core weakness.	Manual therapy and myofascial release (lumbar area), mobility drills, breathing exercises to improve the proprioception of core and strengthening exercises to improve coordination, pelvic movement, and core stability.	Improved mobility, coordination, strength and pain reduction.	Reevaluated after 6 weeks: Improved coordination and core strength, pain reduction confirmed.
Male Golfer (53 years)	The patient experienced chronic spine pain, all the time during golf performance. His pain limited the intensity and duration of his practice sessions and his daily life.	Kinesica Tests, TPI Certified Tests, NRS	Chronic spine pain, tight spinal muscles, quadratus lumborum, piriformis and latissimus dorsi.	Myofascial release and manual therapy (back, glutes), mobility and stretching dynamic and static exercises aimed at improving spine general mobility and stretching to start working with integral strength exercises to improve stability, proprioception, co-contraction and reprogram the motor pattern. Breathing exercises to improve core ⁵ .	Significant pain relief, increased flexibility and strength, less painful golf swing.	Reevaluated after 8 weeks: Significant pain relief and integral improvement in his flexibility and strength confirmed.

Male Polo player (26 years)	The patient experienced discomfort in their right elbow and shoulder limiting her performance during the backswing and hitting actions.	Kinesica & Adapted TPI Tests, NRS	Right upper trapezius, rhomboid tightness. Mobility asymmetry and pelvic restriction. The anterior myofascial chain of upper limbs shortening and the posterior myofascial chain with a lot of tension.	Manual therapy, myofascial release (shoulder/dorsal spine), scapular mobilization, mobility and strengthening drills plus dynamic and static stretching poses to reduce the asymmetry and improve the balance of the body.	Improved flexibility, strength and pain reduce allowing intense activity during polo matches.	Reevaluated after 4 weeks: Reduced pain and improved mobility and strength confirmed.
Male Polo player (50 years)	The patient experienced discomfort in the spine mainly the shoulders and thoracic area limiting her performance and her recovery.	Kinesica & Adapted TPI Tests, NRS	Lack of integral strength, reduced dorsal and pelvic mobility, posterior myofascial restrictions.	Myofascial release and manual therapy (upper limbs, thorax), breathing exercises to improve movement of the thorax and dorsal spine. Stretching statics and dynamic postures. Strengthening exercises focusing on core muscles to work with consciousness and balance all the strength in the body, stimulated the co-contraction to improve the performance and reduce the body efforts.	Increased flexibility, strength, better recovery, pain-free matches.	Reevaluated after 6 weeks: Strength and mobility significantly improved. Pain release confirmed.
Male Polo player (46 years)	The patient experienced upper back and shoulder pain during the matches, limiting her performance during hitting actions.	Kinesica & Adapted TPI Tests, NRS	Tight trapezius, rhomboids, teres, pectorals, anterior myofascial restrictions.	Myofascial release and manual therapy (shoulder/neck), breathing exercises to reduce tension on the anterior chain, scapular mobilization, core and spinal strengthening. Integral stretching exercises.	Improved performance, less effort for powerful swings, better recovery.	Reevaluated after 4 weeks: Improved swing performance and reduced tension in shoulders confirmed.

Results

All participants demonstrated improvements in pain reduction, mobility, flexibility, and strength, leading to enhanced sport-specific performance. Golfers reported better swing mechanics, decreased pain, and improved post-practice recovery. Polo players exhibited greater flexibility and mobility, enhancing their performance during matches. This case series supports the efficacy of a myofascial-based approach in providing an integrated treatment that simultaneously enhances mobility, flexibility, and strength. In all the cases the improvements in pain reduction and mobility were maintained post-treatment.

Discussion

The findings of this case series align with existing research on the effectiveness of myofascial treatments for pain reduction and improved mobility (6). Addressing myofascial restrictions targets underlying musculoskeletal dysfunctions, offering a more holistic treatment approach compared to traditional physiotherapy techniques.

This study also suggests that myofascial release, manual therapy, breathing exercises, stretching, and strengthening exercises are more effective when applied together, as they enhance one another (7) and create a more comprehensive rehabilitation process. While the results of this case series are promising, the study is limited by its small sample size and the lack of a control group. These factors should be taken into account when interpreting the findings. Future studies with larger sample sizes and randomized control groups are essential to further validate these results and explore the long-term benefits of myofascial treatments in athletic performance and pain management. (8)

Conclusion

This case series highlights the potential benefits of a myofascial approach in improving mobility, flexibility, and strength, leading to pain reduction and enhanced sports performance in golf and polo athletes. The results suggest that myofascial treatments provide significant advantages for athletes experiencing musculoskeletal pain and performance limitations and advocates for the inclusion of myofascial approaches in sports rehabilitation and injury prevention protocols. Further research is warranted to establish the efficacy of this approach across different sports and athlete populations.

Conflict of Interest

The author declare no conflicts of interest.

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