Therapeutic Exercise in the Treatment of Greater Trochanteric Pain Syndrome s/p Lumbar Discectomy: A Case Report

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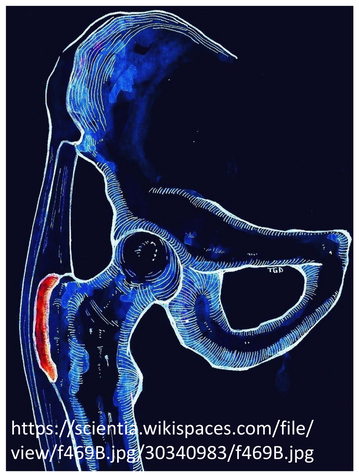
Background and Purpose

- Greater trochanteric pain syndrome (GTPS) is a common cause of lateral hip pain, affecting between 1.8 and 5.6 patients per 1000 annually[1]
- Inadequate core stability and gluteal weakness contribute to the probability of developing GTPS[2]
- GTPS is more common in patients with coexisting low back pain (LBP)[1]
- Discectomy is effective in treating LBP pain caused by prolapsed lumbar intervertebral discs; however, it does not correct back muscle function[3]
- Lumbar stabilization exercise have demonstrated improved QOL outcomes[4]
- As both GTPS and discectomy rehabilitation lack defined treatment guidelines, the purpose of this case report is to describe the physical therapy treatment of GTPS in conjunction with simultaneous rehab from lumbar microdiscectomy



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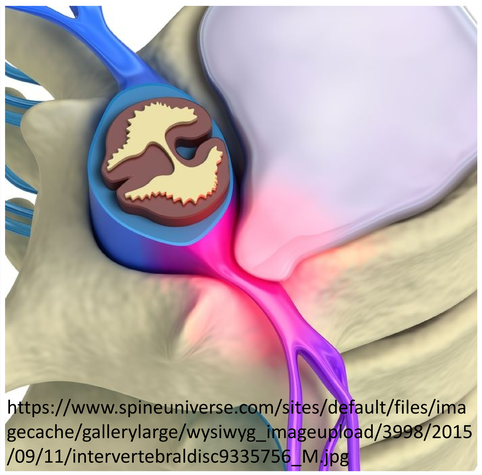

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Case Description

- 56-year-old male, home office desk job
- Onset of left lateral hip pain two weeks after successful lumbar microdiscectomy of L4/L5
- Hip and back stiffness with sleeping and prolonged sitting
- Steady decrease in tolerance for sitting (15 - 20 minutes maximum) and recreational activity (bicycling 20 minutes per day), despite a significant daily walking routine (15,000 steps per day)

Examination

- Tenderness to palpation at left greater trochanter
- Gait: posterior pelvic tilt, externally rotated hips
- Hip AROM impaired by pain
- Surgical incision along lumbar spine well healed
- An exercise program was created for lumbar stabilization and gluteal recruitment, while maintaining a neutral lumbar spine

Interventions

- a neutral spine was emphasized for all therex to protect discectomy

Therapeutic Exercise Progression

Tissue Preparation	Flexibility	Hip Strength	Lumbar Stabilization
• Lacrosse Ball Rolling • Cable Hip/Knee Extension • Cable Terminal Knee Extension • Mini-Band Boxes • Hip Pendulums	• Hip External Rotation Stretch • Hip Adductor Wall Stretch • Kneeling Hip Flexor Stretch on Step • Kneeling Quadriceps Stretch on Ball	• Bridge • Single Leg Hip Lift • Balance • Single Leg Romanian Dead Lift	• 90-90 Abdominal Brace • Plank • Bird-Dog • Pallof • Push-Pull • Overhead Pallof

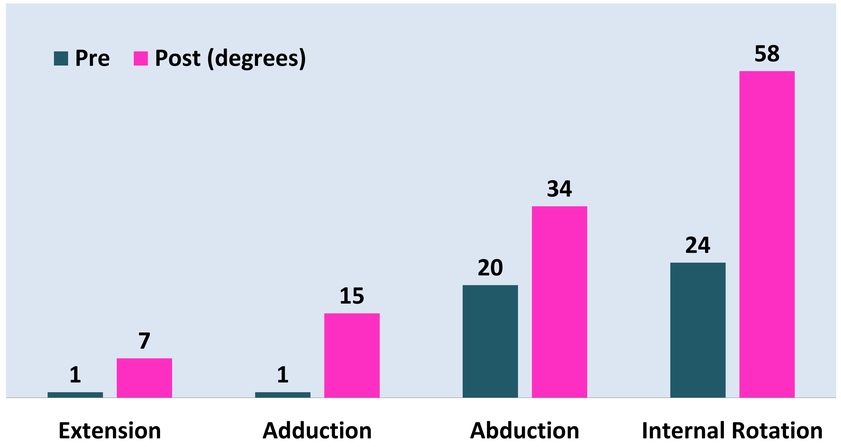
Sessions of Notable Reductions in Pain with Hip Extension Exercises

1. Terminal hip extension painful with bridges
5. Hip flexor stretch completely pain-free
   - Bridge pain-free range expanded
7. Bridges pain-free
   - Single leg hip lift pain-free range increased
8. Hip/knee extensions and hip pendulums pain-free
   - Subject reports multiple planes of motion as painless
9. Hip pain reported with attempted increase to resistance of bridges
11. Single leg hip lift performed at full range, pain-free

Outcomes

- Core stability improved (Bird-Dog 3.5 minutes total time under tension per side)
- Hip ROM improved to WNL and pain-free in all planes
- Increased tolerance for sitting (2 hours) and recreational activity (bicycling 20 miles)
- Reports of hip stiffness with inactivity greater than 1 hour remained at discharge

Pre & Post Treatment Hip Active Range of Motion



Discussion

The concurrent treatment of GTPS and rehab post lumbar discectomy requires a balance of intervention selection. Care must be taken to avoid exacerbating symptoms of one site while treating the other; it is critical to maintain a neutral spine. Further research is needed to develop clinical guidelines in the treatment of GTPS during the rehabilitation following lumbar discectomy.

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