

Center for **Healthcare Delivery Science and Innovation**

Problem

- Among general practice physicians, 20-25% of patients report chronic abdominal pain
- Physical therapists have been using Carnett's sign since 1923 to identify non-visceral pain but lack other validated examination tools to classify musculoskeletal abdominal pain
- Additionally, once identified, current literature presents gaps in physical therapy of management of patients presenting with nonvisceral abdominal pain
- This case study discusses the role of physical therapists in appropriately identifying those with chronic non-visceral abdominal pain and treating via outpatient conservative management.

Goal

Purpose: Demonstrate effective physical therapy examination and interventional approach to conservative management of patients with chronic non-visceral abdominal pain.

Intervention Design

- Case Description: 65 year-old female evaluated on 2/16/23
- **Job Description:** works in research, requiring lifting, prolonged standing, reaching, and twisting
- **Pertinent History:** first noted pain at her RLQ four years ago when she began a job at a hospital, which insidiously resolved. Pain returned two years ago concurrent with start of new job here in research as UCM
- **History of PT:** outpatient PT (primarily supine strengthening) with no relief of symptoms
- **Imaging:** CT abdominal scan on 1/19/23 with no abnormal findings
- **Pain description:** 7/10 currently, 10/10 at worst; deep ache/hitting sensation at right lower abdominal quadrant; aggravated by climbing onto shuttle bus, sit to stand, bed mobility, and prolonged sitting/standing; alleviated by sidelying and moving around

- PSFS and GROC administered to assess progress of subjective report of functional mobility
- Pain via NPRS was assessed each session
- Initial intervention: seated transverse abdominal sets with diaphragmatic breathing
- Impairment based intervention: right psoas stretching, STM at right lower quadrant, stationary bike, lumbar stabilization, postural retraining via thoracic extension, patient education on lifting mechanics, and hip strengthening

Impact

Duration of Treatment: 4 visits over the span of 6 weeks

- Red flags
- Negative Carnett's sign
- Positive abdominal test rebound, etc)

Physical Therapy Management of a Patient with Chronic **Abdominal Pain: A Case Report**



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Special Tests: - B SLR, - R + L ASLR, - R FABER, - B FADDIR, -B scour, + Carnett's sign, - Rovsing's sign, - rebound tenderness **Palpation:** TTP* at right ASIS and iliopsoas (unchanged with mm activation), deep pressure at RLQ 2" superior and lateral to navel; increased hypertonicity palpable at RLQ



Outcomes at Evaluation v. Discharge



Conclusions

- Demonstrates progressive increase in functional status and decrease in pain
- **Examination:** This case discusses the integration of thorough subjective history and examination in identifying non visceral abdominal pain via palpation, special testing, and muscle testing palpation to classify patients into the rehabilitation management
- In addition to Carnett's sign, PT's may benefit from using localized category
- treatment in the setting of risk classification Core strengthening with emphasis on deep lumbar stabilizers, postural retraining, lifting mechanics training, flexibility exercises, active rest, and aerobic conditioning may be efficacious in treating
- **Treatment:** This case discusses the use of impairment based chronic abdominal pain
- Future Considerations: With limited research of the role of physical therapy in management of abdominal pain, more studies are required to explore identification of those appropriate for PT and other treatment techniques such as dry needling

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