Acta Scientific Women's Health (ISSN: 2582-3205)

Volume 5 Issue 8 August 2023

Case Study

Manual Therapy for the Abdominal Wall and Pelvic Floor Muscle's

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Received: June 28, 2023

Published: July 13, 2023

Subjective

A 53-year-old patient presents for evaluation 12 weeks after laparoscopic robotic assisted abdominal/pelvic excision surgery with positive findings of deep infiltrating endometriosis (including excision and ablation at left uterosacral ligament and cul-de-sac) and hysterectomy due to adenomyosis. Pre-sacral neurectomy was completed during surgery.

Primary complaints

Urinary frequency (Q 30 minutes), abdominal region pain (5-8/10), pain with defecation, and feeling of incomplete defecation. Unable to lay on the stomach without pain, clothing touching the abdomen results in 4/10 pain. The patient would like guidance in returning to dance and usual fitness.

Prior to surgery

Did not have daily abdominal pain but did have significant pain with menses, limited tolerance to Vaginal/penis insertion for intimacy, and Q30min urinary frequency.

Prior interventions

The patient had attempted self-treatment of the urinary frequency by reading online and focused on pelvic floor and core muscle strengthening. The patient reports the urinary symptoms did not change with that approach.

Other Diagnoses: IDDM – diagnosed in childhood.

Patient goals

Return to Belly Dancing without limits of pain.

Able to have bowel movements that are complete and not painful.

Be able to complete dance practice (2 hours) without having to go to the bathroom.

Return to intimacy that includes vaginal/penis penetration and toy usage/insertion without pain.

Able to lay on stomach without limits.

Clothing that fits around the abdomen/waist will not cause pain or be limited.

Objective assessment

Postural assessment in sitting and standing

Posterior pelvic tilt and increased thoracic kyphosis. When asked if could stand/sit in more neutral lumbar position reports apprehension and pulling sensation in the abdomen that is rated as 3/10 pain.

Breathing assessment

Reduced rib expansion. Observed to be utilizing upper ribcage/chest breathing with limited posterior thoracic and abdominal movement/excursion.

General Lumbar and LE ROM are WNL without restriction except patient limits hip extension and trunk extension due to pulling sensation in the abdomen.

Lower Quadrant screen including dermatome/myotome screening is negative. FABERS, ASLR, Slump and reflexes are all WNL. Omitted Thomas testing due to patient apprehension with positioning.

Abdominal wall examination

Observed 5 laparoscopic incisions in the abdominal wall all with steri-strips in place. All look to be healing well with not noted redness/raised areas. Difficulty with lying flat is reported and better rest is achieved with support pillows under the knees in supine.

Perennial observation

Patient can perform perineum lift, release and excursion but with noted elevated pelvic floor muscles and reduced lift/excursion ROM.

Perineum palpation

Significant restriction of the myofascial tissues are noted at the medial ischium region bilaterally consistent with ischiocavernosus and bulbocavernosus muscles bilaterally. No noted restriction or pain is present to specific muscle palpation testing.

Intravaginal and rectal examination at this session - Modified oxford scale grading 2 + Completed intravaginal assessment: Pain with initial palpation at the introitus at 5/10 and myofascial restriction at the iliococcygeus, pubococcygeus and the paraurethral muscles.

Plan: treatment session interval – 1x per week for 6 weeks then reassess.

Session 1 (initial session)

Instruction in normal bowel and bladder function and the roll in pelvic floor and core muscles in continence, voiding and defecation. Instruction in posture and breathing patterns to assist with improved posture. Instruction in general down training and awareness to perform throughout the day. Issued bladder diary/ fluid diary to complete prior to next session.

Session 2 (13 weeks post operative)

Review bladder diary

Patient voids 12x per day from every 30-90 minutes and rises 1x at night. Fluid intake: coffee -24 oz per day. Diet cola - 2 per day, Beer -1 per day and water 24 oz per day.

Treatment

Instruction in bladder irritants and guidance on reduction of intake of bladder irritants and instruction in bladder retraining with goal of void interval every 1 hour during the day and then building to 2 hours over time utilizing urge defer strategies. Instruction in PF muscle isolation/localization for usage with bladder retraining/ urge defer.

Review breathing patterns and progress postural changes with goal of neutral positioning in sitting and laying down. Reduced supportive pillow usage at knees in supine. Instruction in general down training and awareness of the pelvic floor and abdominal region. Added knee to chest and lower trunk rotation to self-care program.

Session 3 (14 weeks post operative)

Completed intravaginal assessment

Pain with initial palpation at the introitus at 5/10 and myofascial restriction at the iliococcygeus, pubococcygeus and the paraurethral muscles.

Completed global abdominal wall myofascial assessment with noted restriction throughout the abdominal wall but no specific pain to palpation. Patient describes tenderness but reduced with global stretch 'into ease' with test/retest.

Treatment

Reviewed bladder retraining – patient at void interval of 1x per 90 minutes during the day and has reduced coffee and soda intake to 1 coffee day, 2 diet soda's per week (instead of 1 per day) and Beer 3-4x per week (instead of daily). Increased water intake to 32 oz per day. Reviewed HEP and maintained knee to chest, Lower trunk rotation, breathing and posture for self-care. Initial instruction in defecation mechanics.

Session 4 (15 weeks post operative)

Treatment

Manual therapy

STM/MFR to the abdominal wall – global mobility into ease with sustained hold, began specific incisional site mobilization utilizing approximation of the tissues and global movement/stretch in all directions. All manual techniques without pain reported. STM/MFR including adductor and external perineum mobilization, introitus gentle posterior wall stretch with cues to patient for down training/lengthening.

Reviewed bladder retraining

Patient reports current void interval is 1.5-2 hours. Fluid intake is unchanged from last week. Reviewed defecation mechanics trial with patient reporting better understanding of rest to defecate. Able to demonstrate in sitting.

Progressed self-care to include

Lower trunk rotation, Knee to chest, posture monitor, breathing and added happy baby, hip rotation stretches and core muscle recruitment including abdominal wall progression. Added gentle superficial abdominal wall massage to assist with defecation/GI motility.

Session 5&6 (16&17 weeks post operative)

Treatment

Manual therapy

Patient denies any increase in pain after previous sessions therefore continued to progress STM/MFR to the abdominal wall – global mobility into ease with sustained hold then into restriction as tolerate, began specific incisional site mobilization utilizing approximation of the tissues and global movement/stretch in all directions. Progressed to include specific hold at incisions at points of restriction. Added sidelying diaphragm release/Thoracic cage release. All manual techniques to patient comfort. STM/MFR including adductor and external perineum mobilization, introitus gentle posterior introitus stretch with cues to patient for down training/lengthening.

Reviewed bladder retraining – patient reports current void interval is 2 hours without urgency. Reports defecation is no longer painful but still feels incomplete.

Progressed self-care – Patient returning to pre-surgery stretching program that focused on belly dance specific stretching with modification of limiting stretch by 90% of normal range (Patient demonstrated her program in clinic which included hip, trunk, shoulder stretches with good form). Progressed core program to include standing progression. Began abdominal isolations and isolated dance drills. Progressed to include self manual techniques including global abdominal wall mobilization. Continue with abdominal bowel massage/stimulation in morning prior to rising.

Session 7 (18 weeks post operative)

Re-Evaluation

Postural assessment

Now WNL and able to demonstrate body mechanics and activity modifications. Patient states able to lay on stomach without increased pain over 2/10.

Breathing assessment

WNL and full 360-degree expansion of rib cage and abdomen.

General Lumbar and LE ROM are WNL without restriction including with hip and trunk extension.

Lower Quadrant screen including dermatome/myotome screening is negative. FABERS, ASLR, Slump and reflexes are all WNL. Thomas testing – WNL for psoas and ITB/TFL but patient with report of tension in the abdomen

Abdominal wall examination

Improved global abdominal myofascial mobility. Primary restriction present at umbilical incision and low left quadrant incisional region. Patient able to demonstrate self-mobilization to these areas. Patient states clothing wear is not limited in fit due to abdominal pain.

Perennial observation

WNL PF muscle lift, release, and excursion with WNL resting level of the PF muscles.

Perineum palpation including introitus

2/5 restriction to mobilization at the introitus. No noted restriction at the para-urethral muscles and WNL mobilization to layer 3 of the pelvic floor muscles.

Rectal assessment

Patient declined. States Bowel movements are not limited. Patient states will consider if vaginal insertion does not improve.

Treatment

Manual therapy

STM/MFR to the abdominal wall – global mobility including skin rolling techniques in all directions, specific incisional site mobilization movement/stretch in all directions. STM/MFR including adductor and external perineum mobilization, introitus gentle posterior and lateral stretch with cues to patient for down training/lengthening. Instruction to patient in dilator/spacer/digit or toy usage for stretch. Discussion of lubrication usage for intimacy when patient is ready. Discussion progression towards intimacy/insertion when patient feels ready.

Reviewed bladder retraining – patient feels confident in progression.

Reports defecation is no longer painful and now feels complete

Self-care to include – Continue with dance stretch program, progress return to dance with modifications limiting twist and decreased range of undulations. Continue with self-manual therapy to abdominal wall, incisions and adding in introitus stretch with digit/dilator/toy. Will continue to monitor bowel and bladder function.

Reduce Session frequency to 2x per month.

Sessions 7-12

Completed over the next 6 months which included guidance of return to all dance and culminated with the patient's return to dance performances at 8 months post-surgery and return to insertional intimacy at 5 months with pain at 2/10 and at 9 months post-surgery without pain and able to go to completion. Treatment sessions included manual therapy, progression of patient's self-care including progressive manual therapy techniques, core/general strength and flexibility. Discharge at 10 months post operative with patient's individual goals achieved.