Outpatient Physical Therapy Management of a Breast Cancer Survivor Following Kyphoplasty with a Complex Medical History

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Background and Purpose

- There are over 3 million breast cancer survivors in the U.S.
- Cancer and its treatment can cause a wide variety of long-term physical and psychological problems.
- The physical therapist’s role is not well defined for this population.
- The purpose of this case report is to describe the outpatient physical therapy management for a patient with a history of breast cancer as well as considerable additional health issues.

Patient History

- Patient was a 70 year old female who was referred to outpatient physical therapy for generalized weakness following kyphoplasty.
- Patient had an extensive medical history, including:
  - Advanced Osteoporosis (3.5 years ago)
  - Compression fractures of spine
  - Kyphoplasty – 1 year ago
  - Stroke – 12 years ago
  - High blood pressure
  - Scoliosis
  - Stress urinary incontinence
  - Fibromyalgia
  - Atrial fibrillations
  - Migraines
  - Depression
- Double mastectomy
- Metastatic breast cancer

Kyphoplasty Surgery

- Vertebral compression fractures (left) were surgically expanded
- Space was then filled with orthopedic cement (right)

Examination

- Major findings included: impaired sitting and standing posture, decreased range of motion (ROM) in upper extremities (UE) and trunk, decreased gross strength, decreased endurance, high level of fatigue, and impaired functional mobility

Patient was seen for a total of 11, 40 minute sessions over the course of 6 weeks
- Each session combined therapeutic exercise, functional training, and manual techniques

Procedural Interventions

- Therapeutic Exercise
  - Flexibility Exercises
  - Gait and Locomotion Training
  - Relaxation
  - Strength, Power, and Endurance Training
- Functional Training in Self-Care and Home Management
  - Activities of Daily Living (ADL) Training
  - Instrumental ADL Training
  - Injury Prevention Education
  - Safety Awareness Training
  - Manual Therapy Techniques
    - Massage
    - Passive Range of Motion

Changes in Outcome Measures

<table>
<thead>
<tr>
<th>Test / Outcome Measure</th>
<th>Baseline</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Visual Analog Scale (VAS)</td>
<td>7.4 / 10</td>
<td>7.0 / 10</td>
</tr>
<tr>
<td>Therapeutic Associates Outcomes System (TAOS)</td>
<td>26%</td>
<td>40%</td>
</tr>
<tr>
<td>Life Satisfaction Questionnaire 9 (LISAT-9)</td>
<td>30/54</td>
<td>40/54</td>
</tr>
<tr>
<td>Five Times Sit to Stand Test (FTSST)</td>
<td>49 seconds</td>
<td>19 seconds</td>
</tr>
<tr>
<td>Fatigue Severity Scale (FSS)</td>
<td>63/63</td>
<td>53/63</td>
</tr>
<tr>
<td>Activities-specific Balance Confidence Scale (ABC Scale)</td>
<td>34%</td>
<td>48%</td>
</tr>
</tbody>
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Discussion

- Patient made good progress and able to reach her goals
- Previous studies have demonstrated physical and psychological benefits of physical activity for cancer survivors.
- Findings demonstrate the potential of individualized outpatient physical therapy management to improve function and quality of life for cancer survivors with complex medical histories.
- Future randomized control trials should focus on the effects of individualized treatment on function and quality of life for this population in the outpatient setting.