Physical Therapy Interventions to Increase Independence with Functional Mobility for an Older Individual with Spinal Stenosis: A Case Report

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Background

- **Spinal stenosis** includes narrowing of the spinal canal which can affect nerves and other structures that pass through.[1]
- Symptoms commonly associated with spinal stenosis are pain and paresthesia into the lower extremities.[1]
- Spinal stenosis is diagnosed through patient history, clinical findings, and/or physical tests.[2]
- Literature supports the use of physical therapy (PT) for conservative treatment in decreasing signs and symptoms of spinal stenosis[3].

Purpose

The purpose of this case report was to describe a comprehensive physical therapy program with goals to decrease pain and improve functional mobility for a patient diagnosed with lumbar spinal stenosis living a sedentary lifestyle.

Case Description

- 79 year-old male presented with complaints of decreased mobility due to lower back pain secondary to spinal stenosis
- Chief complaints:
  - Impaired functional mobility due to lower back pain
- Patient's goal
  - "To get my legs working again, like they used to"

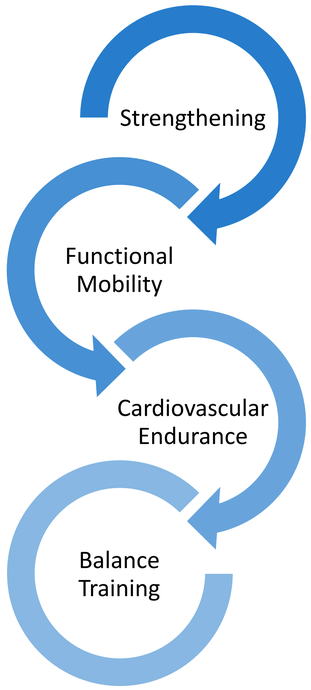
Systems Review

Cardiovascular/ Pulmonary	Impaired • Hypertension • Chronic Obstructive Pulmonary Disease
Musculoskeletal	Impaired • UE ROM – L shoulder • UE strength • LE strength
Neuromuscular	Impaired grossly
Communication	Impaired • Aspiration precautions
Affect, Cognition, Language, Learning Style	Impaired • Hoarse voice
Integumentary	Intact

Timeline

Pre-Admission	Day 1	Month 1	Month 2	Month 3	Last Day
• 79-year-old male presented with complaints of decreased mobility due to generalized deconditioning and low back pain	• Re-evaluation • Administration of AM-PAC	• Interventions • Bed mobility training • Neuro Re-education • Strengthening • Standing tolerance	• Interventions • Bed mobility training • Neuro Re-education • Strengthening • Transfer training	• Interventions • Bed mobility training • Neuro Re-education • Strengthening • Standing tolerance	• Administered AM-PAC • Standing tolerance

Interventions



Outcomes

Functional Task	Initial Evaluation	Discharge Evaluation
Transfer	Unable	Stand pivot with mod A. of two therapist
Pull to Stand	Unable	Pull to stand for 45 sec. with min A. and use of BUEs
Bed Mobility (Supine to Sit)	Max A. w/ HOB fully elevated	Max A. w/ HOB elevated to 45*
Static Sitting Balance	5 sec.	3 min
Gait	Unable	Unable

Conclusion

Implications for Clinical Practice:

- Patients with the diagnosis of Spinal Stenosis and who are severely deconditioned could benefit from strengthening, balance and cardiovascular training to increase functional mobility.
- The use of task specific training may improve patients functional mobility and in turn decrease pain.
- With an increase gross movement patients may report a decrease in pain

Implications for Future Research:

- Further case reports exemplifying the most effective physical therapy treatment for spinal stenosis are still needed.

Take Home Message:

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Contact Information

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