

“Spinal Cord Injury”
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Introduction

Patient is a 38-year-old male admitted to Bedford Center on 4/20/18 following hospitalization at NYU Langone and Cornell. Patient had chronic LBP and presented to emergency room with tetra paresis and underwent C2-T1 posterolateral fusion, C2-C7 laminectomy, bone biopsy and plastics closure. Patient lives with his wife in a basement apartment with no stairs. Prior to hospitalization, patient was independent and occasionally used cane for ambulation. Patient was referred to sub-acute care at BC for skilled rehab services.

Goals

- Increase strength in bilateral hands
- Regain motor function and control in bilateral hands
- Increase independence w/ ADL tasks

History

- PMH of depression and chronic low back pain (L4/5-S1 herniated disc on MRI 2 yrs prior)
- He was hospitalized at Cornell from 2/26/18 through 3/22/18 and at NYU Langone from 3/22/18 through 4/19/18
- Upon initial evaluation, patient required Hoyer lift for transfers and required extensive assistance for all ADL tasks
- Patient began using Bioness H200 Wireless on bilateral upper extremities on 7/2/18. At this time, he had active movement in his hands and fingers, but was unable to grasp items strongly and required Min assist for grooming and feeding tasks. He demonstrated 3/5 strength in bilateral hands.
- After 5 sessions of using Bioness H200 Wireless, patient was able to perform fine motor ADL tasks (feeding, grooming) with contact guard assist
- After 10 sessions of using Bioness H200 Wireless, patient was able to perform tasks with stand by assist
- After 15 sessions of using Bioness H200 Wireless, patient was performing fine motor ADLs with supervision along with pinching tasks and coin manipulation. He demonstrated 4-/5 strength in bilateral hands.
- Program duration was 29 days.

Results

The patient was seen for a total of 15 occupational therapy sessions using the Bioness H200 Wireless. He demonstrated a significant improvement in strength, gross motor and fine motor skills of bilateral hands. These improvements enabled the patient to participate more with his ADL tasks, decreasing caregiver burden and enhancing the patient's quality of life. He also demonstrated improvement with transfers, now requiring only extensive assist of one person. Patient continues to receive skilled rehab at Bedford Center and has progressed to standing, transfers and gait training.

Results may vary per patient. Keep in mind that all treatment and outcome results are specific to the individual patient