

# Treatment of Idiopathic Late Onset Cerebellar Ataxia with Biomodulator Therapy A Case Study

---

Authors:

Tony Pinazza NMD

Jeffrey Langland PhD

Lilia Feria NMD

Joseph Tilchen



# Idiopathic Late Onset Cerebellar Ataxia

- Cerebellar ataxia (stumbling, unsteady & poor coordination)
- Extracerebellar features
  - Abnormal reflexes
  - Sensory loss or change
  - Cognitive impairment
  - Involuntary movements
  - Slowed speech
  - Vision abnormalities
  - Spasticity
  - Weakness
  - Changes in muscle tone



# Idiopathic Late Onset Cerebellar Ataxia

- Treatment Goals:
  - Supportive therapies
    - Physical therapy
    - Occupational therapy
  - Symptomatic management

# Case History



45-year-old female



Post-partum onset of ataxia 11 years ago.



Slow yet steady progression of symptoms over 11 years



CT 2006: WNL  
MRI 2019: WNL  
Labs: WNL



No family history of neurological disorders



# Case History

- Symptoms experienced:
  - Ataxia (abnormal gait)
  - Hyperreflexia
  - Hyporeflexia
  - Muscle weakness
  - Sensory changes (loss of feeling)
  - Myalgias (muscle soreness)
  - Memory loss and brain fog
  - Mild aphasia (slowed speech)
  - Eye pain

# Intervention

## Goal of Treatment

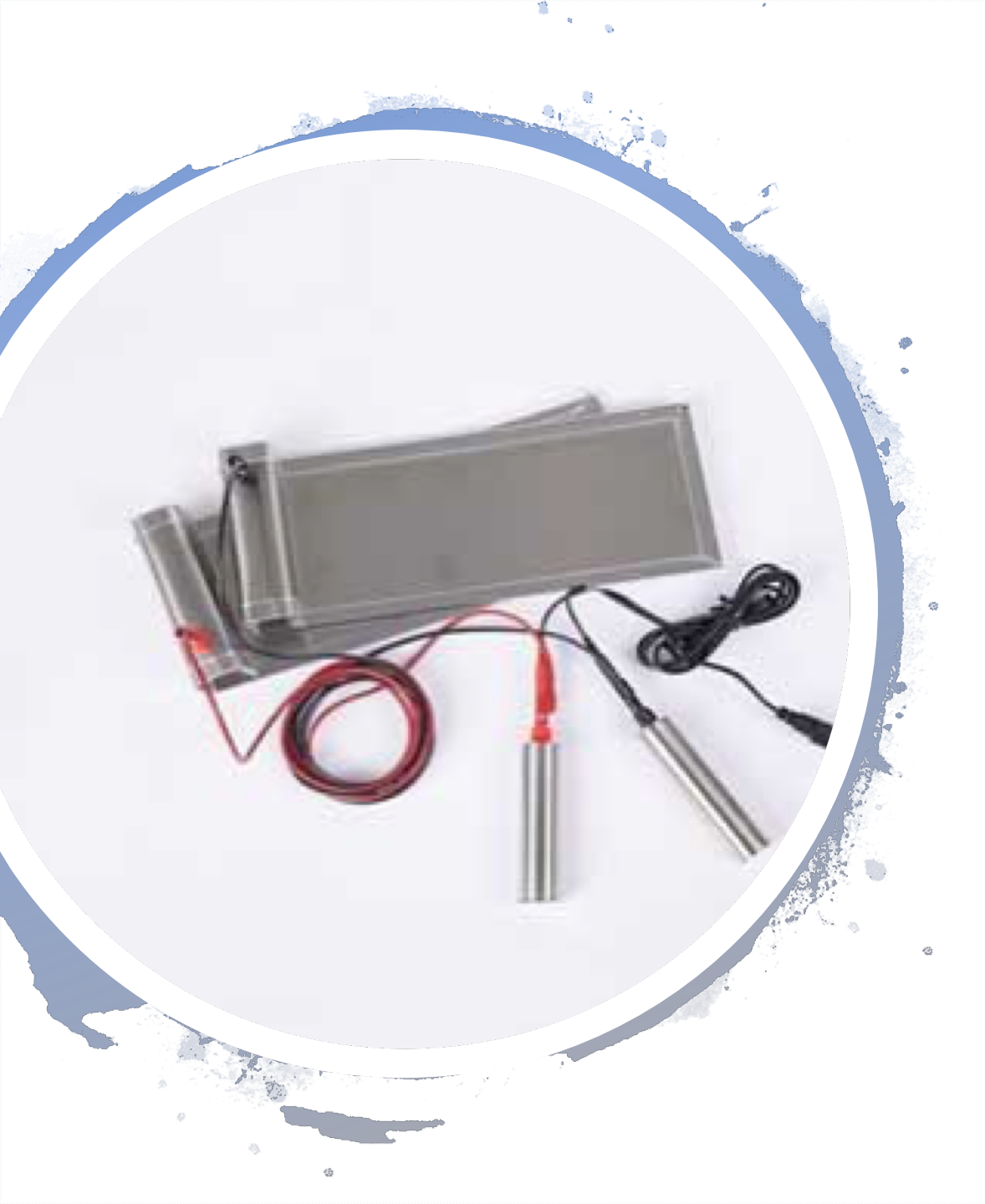
- Improve muscle strength, coordination and slow progression of symptoms.

## Biomodulator Pro

- Solfeggio mode
- Weekly treatments for 20 min

## Supplements

- *Oenothera biennis* (Evening Primrose Oil): 1000mg per day
- CoQ10: 200mg per day
- Alpha lipoic acid: 1000mg per day
- *Hericium erinaceus* (Lion's Mane): 3g per day



# Biomodulator

- The Biomodulator works by giving the cells the energy they need to regenerate.
- Transmission of microcurrent electrical impulses via electrodes through the skin.
- This microcurrent impulse stimulates the body to release and increase:
  - Nitric oxide
  - Endorphins
  - Neuropeptides
  - ATP

# Solfeggio Mode

- Biomodulator generates a moderately damped sinusoidal waveform in pulses of a particular frequencies
- Solfeggio steps up and down a series of frequencies: 174, 285, 396, 417, 528, 639, 741, 852, 963 Hz
- Pulses at each frequency are produced for 40 seconds
- These frequencies are believed to correspond with the body's energy centers

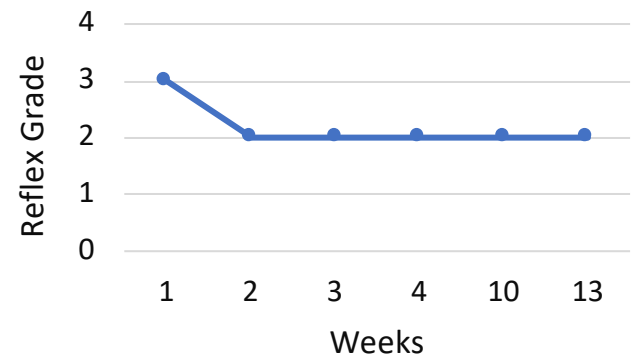


## **Reflexes are usually graded on a 0 to 4+ scale**

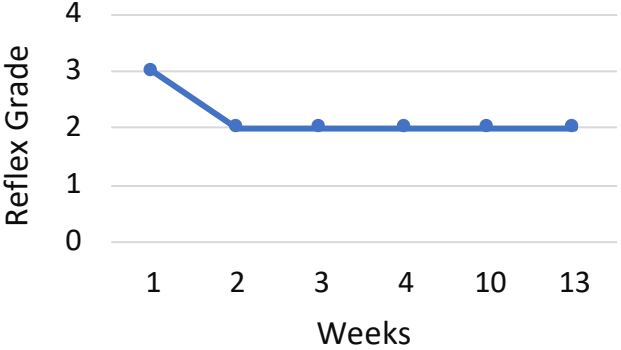
4+	Very brisk, hyperactive, with clonus (rhythmic oscillations between flexion and extension)
3+	Brisker than average; possibly but not necessarily indicative of disease
2+	Average; normal
1+	Somewhat diminished; low normal
0	No response

# Outcomes: Reflexes

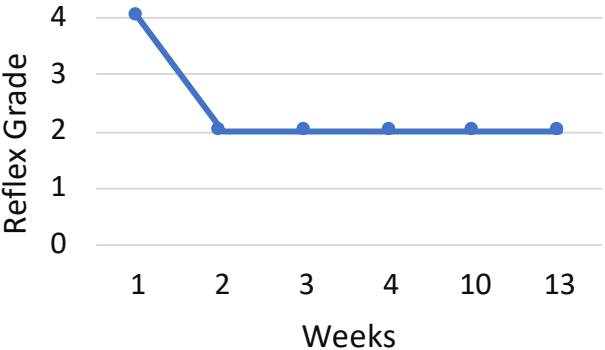
C5 – Biceps



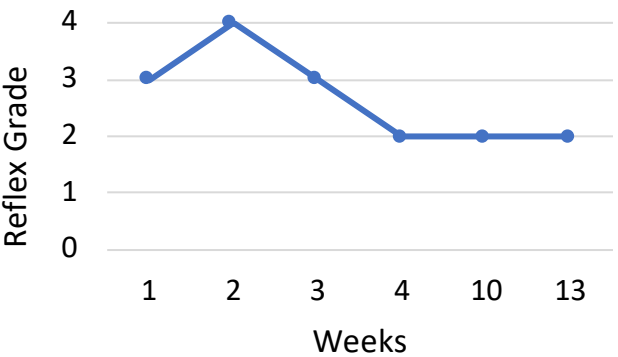
C6 – Brachioradialis



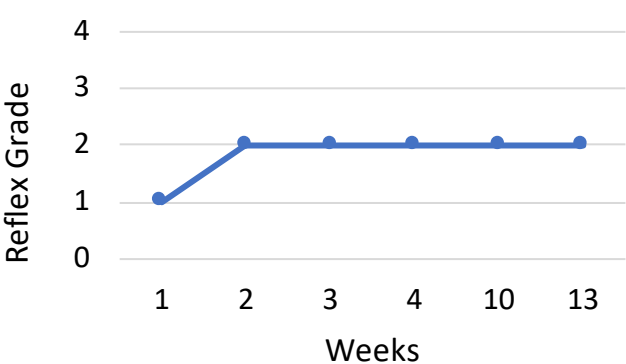
C7 – Triceps



L4 – Quadriceps

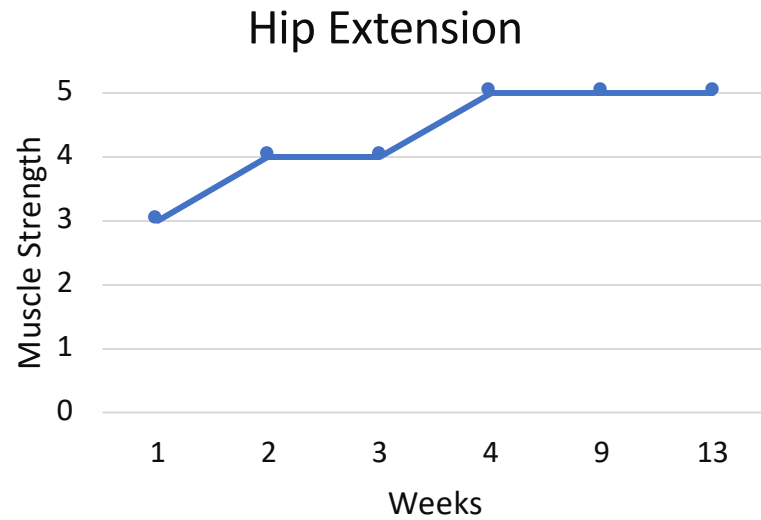
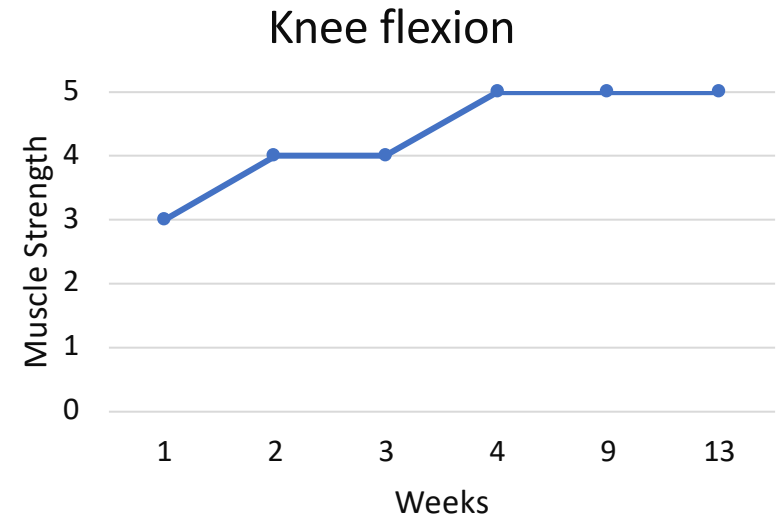
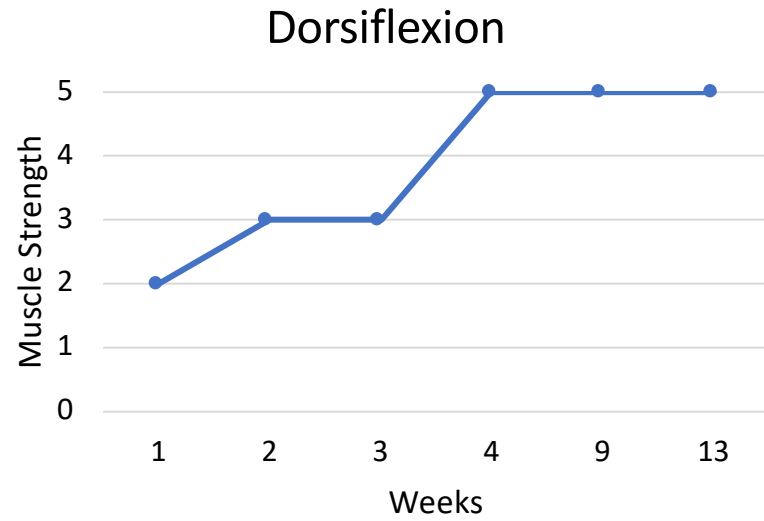


S1 – Achilles



Score	Description
<b>0</b>	No contraction
<b>1</b>	Flicker or trace of contraction
<b>2</b>	Active movement, with gravity eliminated
<b>3</b>	Active movement against gravity
<b>4</b>	Active movement against gravity and resistance
<b>5</b>	Normal power

# Outcomes: Muscle Strength

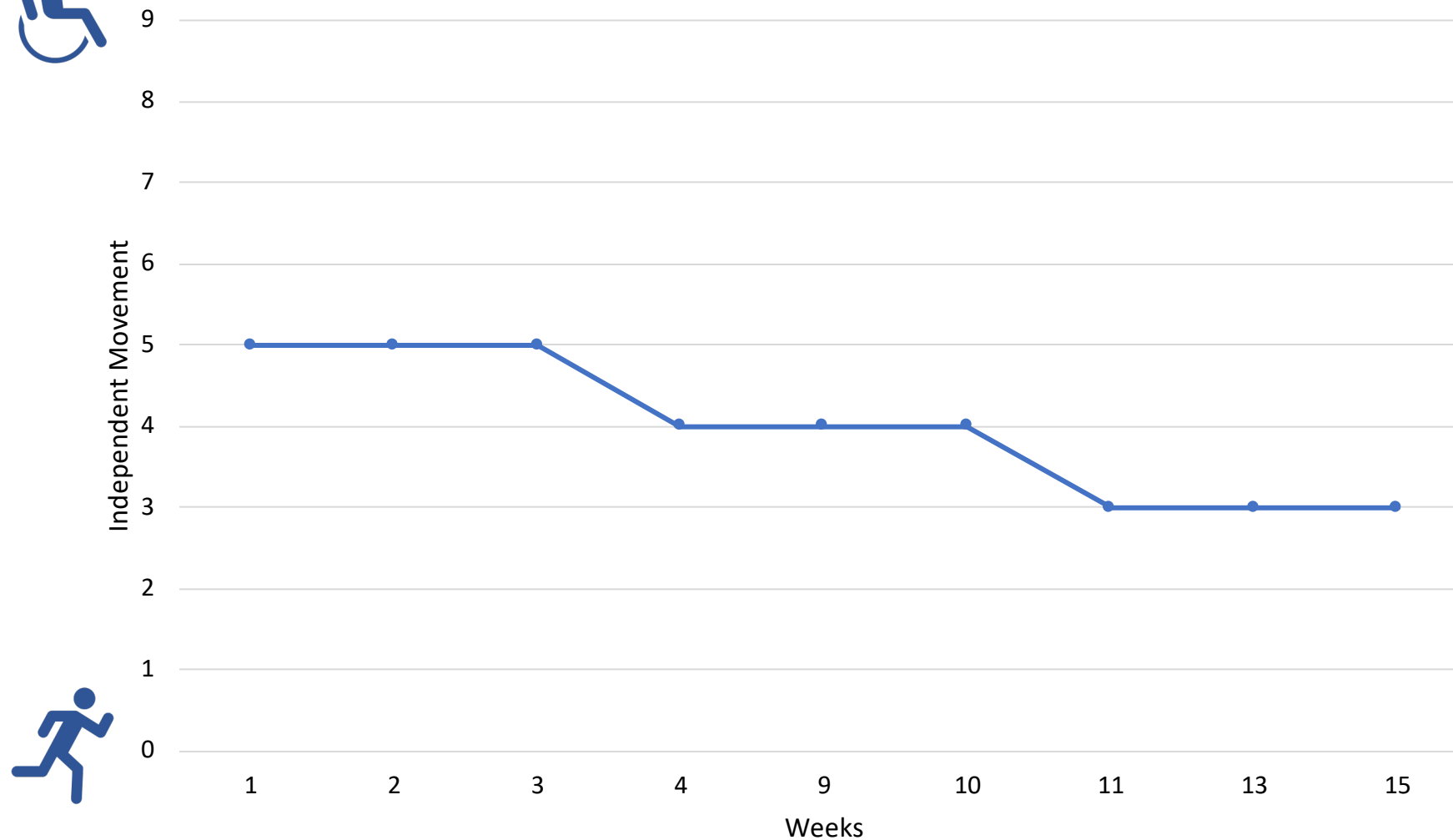




# Outcomes: Activities of Daily Living



Hauser Ambulation Index



# Conclusion

- This case represents the successful treatment of late onset cerebellar ataxia with Biomodulator therapy.
- This treatment demonstrated the ability to improve muscle strength, coordination and ADL's better than conventional treatment standards.



Questions?