



CASE STUDY:

Physical Therapy – Acute Left Knee Pain

DEMOGRAPHIC

Patient was a 54 year old that presented to physical therapy with complaints of acute left knee pain. Upon examination, the patient demonstrated with a left MCL and medial meniscus pathology impairing gait, ADLs (Activities of Daily Living), and recreational activity.

Grade of strain/tear was not determined via MRI imaging, but signs and symptoms were consistent with a Grade 2 Tear.

TREATMENT PROTOCOL

In addition to traditional physical therapy protocols for this injury, the physical therapist immediately initiated PEMF to help with MCL and meniscus healing.

PEMF PROTOCOL

PEMF Machine - **Aura Wave**

PEMF SPECIFIC SETTINGS

Frequency: 2x/week (except for one week in which PEMF was only performed once)

Equipment: Small butterfly loop

Location: Butterfly loop placed around left knee fastened with stabilization belt

Time: 20 minutes per session

Intensity: 14

Total sessions: 11 sessions

RESULTS

Weeks 1-2 (4 total PEMF sessions):

- Noted swelling in left knee with pronounced antalgic gait (limping).
- Pain Report: **Highest with ambulation and activity: 7/10**

Weeks 3-4 (4 total PEMF sessions):

- Swelling was less pronounced, and gait started to become more normalized.
- Pain Report: **Highest with ambulation and activity: 5/10**

Weeks 5-6 (4 total PEMF sessions):

- Gait normalized and a noted 75% reduction in left knee swelling.
- Pain Report: **Highest with ambulation and activity: 2/10**

CONCLUSION

Based on our findings, we can suggest that implementing Aura / PEMF into a physical therapy plan at the onset of care may accelerate healing of patients experiencing MCL and medial meniscus pathologies. This conclusion was based on the standard healing timeframes associated with this injury and similar injuries. Further research is needed to determine if there are more optimal Aura / PEMF settings to facilitate faster healing in regard to patients presenting with knee pathologies.

