THE TREATMENT OF SUSPECTED POSTOPERATIVE FIBULAR NERVE INJURY AFTER TOTAL KNEE ARTHROPLASTY: A CASE REPORT

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The patient participating in this case report signed documentation indicating her informed consent to participating.

Background and Purpose- There are established guidelines regarding the rehabilitation protocol after having a total knee arthroplasty (TKA). However, if complications arise during surgery, the rehabilitation plan must change based on new functional impairments. One of the complications that can occur during surgery is injury to the fibular nerve resulting in the inability to dorsiflex the foot (foot drop). This case report describes the management of a patient that developed foot drop after having a TKA.

Case Description- The patient was a 60 year old female who underwent a TKA and immediately post-surgically developed foot drop. Interventions for this patient included manual stretching of knee flexion and extension, lower extremity strengthening exercises, stretching to prevent heel cord tightness, gait training, instruction on utilizing a night splint and AFO, and the use of NMES to stimulate the fibular nerve. The patient was seen for over 3 months of treatments

Outcomes: Focus on Therapeutic Outcomes (FOTO) score for the lower extremity indicated minimally important clinical change indicating functional improvements over a 3 month period. There were also improvements in knee ROM, increased strength, and decreased pain. No active dorsiflexion was achieved throughout therapy, but slight 2nd and 3rd toe extensor function did return.

Conclusions: Nerve injuries post-TKA are not common, but do occur. An individualized treatment approach is needed for the complexity of this diagnosis. There also needs to be communication with the regard to the severity of the injury between the surgeon and the physical therapist, which was lacking in this case. Although the patient was unable to achieve active dorsiflexion during PT sessions, her knee TKA rehabilitation was successful, and overtime her ability to actively dorsiflex is expected to return given the return of toe extension.