



Introduction

The development of common peroneal neuropathy after drastic weight loss, also known as slimmer's palsy, has been previously reported. However, there is paucity of literature explaining the etiology of this condition.

The objective of this case series was to report the clinical findings of patients at our institution who developed common peroneal neuropathy after a period of significant weight loss.

Methods

We retrospectively reviewed the charts of patients who were diagnosed with common peroneal neuropathy between 1/1/2012 and 1/1/2017 and had experienced weight loss greater than 30lbs at time of symptoms onset. Patient demographics, symptoms, and EMG data was collected and reviewed.

Results

We identified four patients who presented for neurosurgical evaluation who were diagnosed with common peroneal neuropathy after rapid weight loss greater than 30 lbs (Mean age= 56, female n=3). The average weight loss was 68.5 lbs and occurred in less than 6 months in all patients. Weight loss occurred after bariatric surgery in 2 patients. Symptoms presented unilaterally in 3 patients and bilaterally in 1 patient. All patients reported numbness in the distribution of the common peroneal nerve. Three patients were found to have reduced dorsiflexion and reduced strength in the extensor hallucis longus. EMG studies were obtained in 3 patients and confirmed common peroneal neuropathy originating at the region of the fibular head.

Table 1. Demographic and clinical variables (n=4).

Age	56 (41-63)
Sex (female)	75%
Mean 6 month weight loss (range)	68.5 lbs (45-95)
Unilateral symptoms	3

Conclusions

All patients in the present series developed common peroneal neuropathy associated with rapid weight loss in a time of less than 6 months. This neuropathy could not be linked to any other known cause in all patients. The literature supports metabolic and nutrient deficiencies as a contributing factor to the development of slimmer's palsy. Future studies will focus on the true prevalence and incidence of this disorder and investigate the etiology of this condition.

Learning Objectives

By the conclusion of this session the participant should be able to understand the association between common peroneal neuropathy and rapid weight loss.