

Austin McCadden, MD

Tripler Army Medical Center Orthopedic Residency

LOWER TRAPEZIUS TENDON TRANSFER FOR THE TREATMENT OF BRACHIAL PLEXOPATHIES

Abstract

Introduction: Traumatic injuries are the most common cause of brachial plexus lesions in children and adults. Lesions most commonly result from closed traction injuries, with many of those occurring during vehicular accidents. Whereas, Parsonage Turner Syndrome is a rare cause of brachial plexopathy that can lead to dysfunction similar to that caused by traumatic injuries. Loss of Suprascapular Nerve (SSN) function is common in brachial plexus injuries leading to weakness of the supraspinatus in shoulder abduction and the infraspinatus in external shoulder rotation. The treatment of brachial plexopathies varies depending on the etiology, pathophysiology, severity, and duration.

Case Series: In this paper, we report cases of partial brachial plexus palsy in a 32-year-old active duty male status post motorcycle accident and a 27-year-old active duty male diagnosed with Parsonage-Turner syndrome, both repaired by arthroscopically assisted lower trapezius transfer using Achilles tendon allograft.

Conclusion: Brachial plexopathies, with complete loss of SSN function can be treated with an arthroscopically assisted lower trapezius transfer. This procedure can provide significant improvement in strength, active range of motion (ROM), and functionality.