

# Obstetric Brachial Plexus Palsy in a Female Collegiate Soccer Player



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## Introduction

Obstetric Brachial Plexus Palsy (OBPP) is a birthing process traction injury to the bundle of spinal nerve roots that supplies the upper extremity. A certain degree of spontaneous recovery can occur but further recovery is obtained through surgical interventions and manual therapy. The prevalence is currently reported as 1.5 cases per 1,000 births.

## Purpose

This case review demonstrates the uniqueness of the condition and how a neurological case can be treated with an orthopedic rehabilitative approach in the athletic training setting. This approach allowed for an enhanced return to functional ability. This is currently an open case and the athlete continues to adhere to the rehabilitation program.

## Background

- 19-year old female
- Collegiate soccer midfielder
- History of obstetric brachial plexus palsy
- Muscular Transposition during infancy

## Clinical Evaluation

- Reported ROM deficits since surgery
- Diminished C6 dermatome sensation
- Decreased Active Range of Motion:
  - 10° Extension
  - 63° Abduction
  - 39° External Rotation
  - 32° Internal Rotation
- MMT 3/5 Abduction and Adduction
- MMT 4/5 External Rotation

## Interventions

- Passive Stretching
- Glenohumeral Joint Mobilizations
- Scapular Mobilizations
- Myofascial Release techniques
- ROM exercises (i.e., wall-climbs)
- Core stability exercises
- Electrical Stimulation Muscle Reeducation

## Conclusion

This case study presents the clinical presentation and therapeutic interventions used to treat obstetric brachial plexus palsy. It also demonstrates that an orthopedic rehabilitation protocol that focuses on biomechanics and proper joint mobility can be used on unique cases like this to increase range of motion and return to functional ability, despite the complex neurological background of the condition.

