

# CLINICAL REASONING IN THE FACE OF UNCERTAINTY: CONSERVATIVE PHYSICAL THERAPY MANAGEMENT OF A TEENAGE ATHLETE DIAGNOSED WITH A PROXIMAL HUMERAL NON-OSSIFYING FIBROMA

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## ABSTRACT

**Background and Purpose:** There have been few published studies regarding the treatment of patients with non-ossifying fibromas (NOFs), either conservatively or operatively. The purpose of this case report is to discuss the clinical presentation and conservative management of a teenage athlete diagnosed with a proximal humerus NOF.

**Case Description:** The subject was a 13-year-old male middle school student with a diagnosis of left shoulder pain over the prior year preventing him from participating in sports activities. The combination of radiological findings revealing a NOF and a thorough physical examination allowed for the development of a physical therapy plan of care to address impairments and functional limitations. The subject was seen for eight visits where a combination of manual therapy techniques, neural mobilizations, and therapeutic exercises were administered to the cervical and upper quarter regions. The subject's progress was tracked by measuring pain-free shoulder active range of motion (AROM) and monitoring changes using the Numerical Pain Rating Scale (NRPS) values throughout sessions.

**Outcomes:** After four sessions, AROM shoulder flexion and abduction increased from 123° and 119° to 160° and 180° respectively, and worst NRPS decreased from 9/10 to 3/10. Upon discharge after the eighth visit, the subject's DASH improved from 11.66 to 2.5. The subject remained pain free at an eight month follow up and returned to activity.

**Discussion:** Thorough assessment of both neuromechanical sensitivity and musculoskeletal impairments may provide for the utilization of conservative treatment options for individuals with symptomatic NOFs.

**Level of Evidence:** 4

**Keywords:** neural mobilizations, non-ossifying fibroma, shoulder, movement system

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## COI statement: