

## Thoracic Spine Pain – Baseball

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**HISTORY:** A 20 year old collegiate baseball pitcher presented with a 2 month history of intermittent right posterior thoracic pain and swelling. Symptoms were only present with high velocity throwing. Pain was described as sharp, and occurring during the late cocking and follow-through phase of the throwing motion. Pain when provoked was rated 9/10 in intensity. After symptom provocation, localized swelling would persist for several days. No numbness, parathesias, or weakness of the extremity was present. Prior treatments with chiropractic manipulation, ice, and ibuprofen were not beneficial. He also took a month off, but when he resumed throwing his symptoms recurred. He did not recall any trauma.

**PHYSICAL EXAMINATION:** Palpable muscle hypertonicity was noted between the 8<sup>th</sup> and 9<sup>th</sup> ribs posteriorly. Tenderness to palpation was noted over the right 8<sup>th</sup> and 9<sup>th</sup> costovertebral joints. Palpation of these regions did not reproduce his presenting complaint. Strength of the supraspinatus, internal and external rotators was rated 5/5. There were no impingement signs or instability. There was some scapular winging noted during the throwing motion.

**DIFFERENTIAL DIAGNOSIS:** 1. Rib stress fracture 2. Somatic costovertebral dysfunction 3. Latent trigger point 4. Scapular dyskinesis

**TEST AND RESULTS:** Right rib series and anterior-posterior chest radiographs: No evidence of fracture. No evidence of pneumothorax. The lung fields were clear.

**FINAL/WORKING DIAGNOSIS:** Somatic costovertebral dysfunction with associated muscle spasm.

**TREATMENT AND OUTCOMES:** Patient was instructed to throw a baseball until his symptoms were provoked. The painful area was localized to the right 8<sup>th</sup> and 9<sup>th</sup> costovertebral joints. There was associated muscular spasm, but no active trigger points. A diagnostic lidocaine injection was performed to the area of muscle tenderness and the patient was advised to resume throwing. Immediately following the injection, he was sent to pitch with the same intensity that previously produced symptoms. He had no recurrence of the presenting complaint. Due to the mild soreness of the right 8<sup>th</sup> and 9<sup>th</sup> costovertebral joints, manipulation was then performed. Patient was advised not to throw for 2 days followed by a return to pitching program. He subsequently resumed throwing and has been asymptomatic for 2 months.