INCIDENTAL FINDING OF PLEURAL INFECTION IN A RECREATIONAL WEIGHT TRAINEE: A CASE STUDY

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HISTORY: A 55-year-old, right hand dominant, Caucasian male executive performed a sit-up in a ballistic manner and developed right-sided upper thoracic pain. The injury occurred 3 days before the office visit. The patient denied pain with the Valsalva maneuver, and denied radiating pain, tingling or numbness in the bilateral UE or LE. There is a familial history of osteoporosis.
PHYSICAL EXAMINATION: The patient presented in acute pain. The upper and lower extremity DTRs were 2+ bilaterally. Hoffman's reflex and clonus were absent. The patient did not have motor or sensory deficits in the UE or LE. Orthopedic tests for the cervical spine failed to elicit symptoms. Cervical AROM was within normal limits without pain. The patient had marked myospams and 3+ tenderness to palpation over the right 3rd rib posteriorly.
DIFFERENTIAL DIAGNOSIS: 3rd rib subluxation; rule out 3rd rib fracture.
TREATMENT: The patient received soft tissue mobilization to the thoracic paraspinal muscles, middle trapezius and rhomboid muscles. Manipulation was not performed secondary to the possibility of a rib fracture. The patient initially reported to the office on a Saturday and x-ray was not available. The patient was markedly improved after the initial treatment. The patient returned two days later with an exacerbation of his symptoms to the previous level. The myospams were contracting intermittently and rapidly causing the patient to vibrate while laying supine on the table. X-rays and an MR scan of the thoracic spine were ordered. The MR findings were reported immediately as a suggestion of mesothelioma or sarcoma. CT scans with and without contrast of the chest, abdomen and pelvis were ordered to further evaluated the pathology and to ascertain if there was a primary lesion elsewhere. The CT of the chest confirmed the pleural findings suggesting fluid and did not reveal a neoplasm. The right lung fields were markedly compromised. Aspiration failed to draw fluid from the lesion. The patient was admitted into a hospital two days later and was febrile (101 F). The patient did not perceive a fever prior to this date. A minimally invasive, intercostal endoscopic procedure was performed and the infection was found to be gelatinous-like density infection of 15cm x 7cm. The infection was successfully removed. The patient was placed on IV and oral antibiotics for six weeks.

FINAL DIAGNOSIS: 1, Pleural infection 2. Possible 3rd rib sprain

DISCUSSION: This patient may have had a rib sprain that produced the symptoms, which caused him to seek health care. The symptoms had a sudden onset during the course of performing sit-ups while pulling his neck into flexion in a ballistic manner. This investigation for rib pathology revealed significant pleural pathology with marked lung volume compromise. The rib sprain symptoms may have resolved with the tincture of time and conservative care. It is also possible that the upper thoracic symptoms were

entirely related to the infection and exercise may have created a demand on markedly reduced lung volume and this produced his upper thoracic pain.

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