ISOLATED TERES MINOR TEAR WITH RETRACTION IN A 37 YEAR OLD MALE

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BACKGROUND AND PURPOSE: Isolated teres minor tears do not appear to have been reported in the literature or are at the very least quite rare as our literature search did not find any reports. This case study describes a case of isolated teres minor tear.

SUBJECT: Subject was a 37 year old male mechanic who injured his shoulder in a fall off of a tractor.

METHODS: Patient was injured in January of 2011 and was referred to physical therapy by his primary care physician in March 2011 with an order to evaluate and treat and assess for return to work. A literature review was conducted to guide in his care, but nothing was really found. His initial visit consisted of an evaluation that included an isokinetic screening exam and the development of a therapeutic exercise program for strengthening of his rotator cuff/scapular stabilizers.

RESULTS: Patient was seen for 3 visits over a 2 week time period and discharged with a home exercise program and return to work without difficulty. Unfortunately we were unable to follow up on the patient as he was scheduled for a recheck 8 weeks after his last visit but was a no show and did not respond to a phone call.

CONCLUSION AND DISCUSSION: The outcome of this single case seemed to indicate that, at least in the short-term, patients can return to most ADL and occupational activities without difficulty after an isolated teres minor tear.

BACKGROUND: Isolated tears of the teres minor are very uncommon and in our literature search we were unable to find any reports of isolated tears. The literature reports 3 clinical tests for assessing isolated teres minor function. The first by Patte is testing external rotation strength with the shoulder in 90˚ of abduction and 90˚ of external rotation. The second test is the drop test, not to be confused with the drop arm test. The drop test is an external rotation lag test done again at 90˚ of abduction and 90˚ of external rotation. Finally in 1990, Blackburn described a test in prone with the patient resisting a flexion force on the shoulder maintaining the shoulder in neutral in the sagittal plane but maximal external rotation. Most of the literature regarding the teres minor is reporting its association with tears of other tendons or as neurological lesions of the axillary nerve.

SUBJECT: The subject was a 37 year old male mechanic. He reported a history of falling on an outstretched arm off of a tractor approximately 8 weeks prior to his evaluation. He reported severe pain and went to the emergency room and was unable to lift his arm at that time. He subsequently had an MRI which showed an avulsion injury of his teres minor with retraction of the tendon. At the time of initial evaluation he had no pain at rest however he did note some pain with attempting to throw a ball to his son. The only night pain was when he actually rolled onto that shoulder. He did feel that he had some crepitus with reaching overhead and he was most concerned about

some of the heavier activities at his work. On physical exam, he had no visible swelling or atrophy and he had normal mobility throughout his cervical spine and all upper extremity joints. IR-ADD did produce slight pain at end range. Manual muscle tests were all at a minimum of 4+/5 however external rotation, both at 0 and 90˚ of abduction, was provocative for very slight pain. We conducted an isokinetic screening exam at 180˚ per second with his shoulder at 30˚ of abduction and the results were as follows:

	L	R
ER	16.1ft./lbs	16.6 ft./lbs
IR	33.6 ft./lbs	34.8 ft./lbs

We began Rx with development of a moderate intensity strengthening program with emphasis on his rotator cuff and scapular stabilizers. He was seen for a total of 3 visits over 2 weeks and at the time of his third visit he no longer had pain with manual muscle tests and was feeling much more confident about his ability to return to his job. We were able to discuss his case with several different orthopedic surgeons and we had one orthopedic generalist who thought it would probably be best to repair it, as well as one shoulder fellowship trained orthopedist who thought it would be best to repair. We had four shoulder fellowship trained orthopedist's who felt it would be best to watch and wait based upon his current presentation.

RESULTS: At the time of his last visit, he had full motion and manual muscle tests for external rotation at both 0 and 90˚ of abduction were strong and pain-free. He was pleased with his program and was very comfortable with returning to his job at full duty. We had instructed him to avoid throwing and we were planning on bringing him back in 8 weeks for a re-evaluation but unfortunately he cancelled that and we were unable to contact him afterwards.

CONCLUSION AND DISCUSSION: The outcome of this case study suggested, at least in the short-term, an isolated teres minor tear can be conservatively managed with excellent outcome and return to prior functional levels. Based on our discussion with some of the consulting surgeons, we thought it would have been nice to be able to see this patient over time to re-evaluate but unfortunately we were unable to do that due to circumstances beyond our control.