Condition of the Month June 2011

THE SHOULDER

The shoulder is one of, if not the most, complex joints in the body. It is capable of more movement than any other joint. Assessment of this joint requires concise exam and diagnostic skills and techniques. The average general practitioner or chiropractor may not have the knowledge or skill to approximately assess injuries of the shoulder. Injuries and conditions that may affect the shoulder include but are not limited to:

- Instability caused by one or more of the joints of the shoulder being moved or forced out of its normal position.
- Impingement – Caused by excessive rubbing of the shoulder muscles against the shoulder blade. Impingement potential can be increased by type 2 and type 3 acromion formation, subacromial spurs, thickened or calcified coracoacromial ligament, tear of the rotator cuff causing superior migration of the humerus and factors.
- Strain – Caused by over stretching injury of a muscle or tendon in which the fibers tear.
- Sprain – Caused by overstretching injury of the ligament resulting in fibrous tears.
- Rotator Cuff Tear – Partial or full thickness tear of one or more of the four muscles of the shoulder.
- A/C Joint Separation – Separation of the clavicle (collarbone) from the acromion process (a boney prominence of the scapulae or shoulder blade) caused by damage to the ligaments connecting to them.
- Frozen Shoulder - (Adhesive Capsulitis) – Inability to move the shoulder through full range of movement.
- Glenohumeral Joint Dislocation – Caused by the upper arm bone being forced out of its position with the glenoid fossa on the shoulder blade. This may result in tear of the capsule and labrum complex.
- Thoracic Outlet Syndrome – A complex condition manifesting a multitude of potential symptoms. T.O.S. includes the shoulder, upper extremity, chest, neck, and head.
- Shoulder injuries are complex and require specialty skills to properly assess and treat. Delay in appropriate diagnosis of and treatment may result in a more severe problem. Our staff is highly experienced in the assessment, diagnosis, and treatment of shoulder injuries.
- Subacromial Bursitis – Inflammation or irritation of the bursal sac in the front upper portion of the shoulder. Most often caused by injury.

PATHOLOGICAL STATE. Any or all of the above injuries may be increased in potential or severity by existence of a diseased state of the shoulder components.

QUESTIONABLE SHOULDER

MRI of the shoulder can miss 20-30% of actual incurred injury due to the complexity of the joint. your friend or client has a chronic shoulder complaint with negative MRI, comprehensive shoulder examination is warranted.

Condition Of The Month August 2011

LUMBAR SPONDYLOSIS AND LOW BACK PAIN

Frequently we are asked “how much low back pain did the person have before the motor vehicle crash occurred”. In some proportion of claims the injured party will neglect to report prior symptoms, injuries, treatment, and/or impairment. A study was undertaken at Stanford a few years back that demonstrated this propensity.

Radiographic findings of spondylosis and disc degeneration are often taken as good evidence of either prior injury, pain, impairment, or a combination of those things. More advanced forms of spondylosis or disc degeneration are very often associated with back pain. Spondylosis that is localized to a single spinal segment is considered a very strong indicator of prior injury at that segment. Disc spondylosis is also sometimes a source of symptoms.

On the other hand, it is also true that many rather severe cases of spondylosis and disc degeneration are discovered incidentally in imaging for some other condition. The injured party, although spondylosis and disc degeneration are present, could have been completely asymptomatic prior to the onset of the new injury. Practitioners who specialize in neuromuscular skeletal conditions, as we do at The Diagnostic and Injury Center of Houston, are familiar with this relationship. It seems fair to state that there is a clear ***association*** between low back pain and degenerative conditions, but whether there is an adequate ***correlation*** upon which to boast an opinion in a contested medical claim is the more fundamental question. Better yet, we should look at sensitivity and specificity.

A recent study looking at this association among older subjects (70 years and older) has once again

demonstrated that no clear correlation exists until there is a loss of disc height. Even then, there is only a significant correlation in women. Many studies support the theory that disc degeneration proceeds spondylosis.

1. 2.
Muraki S, Oka H, Akune T, A. M, et al. Prevalence of radiographic lumbar spondylosis and its association with low back pain in elderly subjects population based cohorts; The ROAD Study. Annual Rheumatoid Disease 2011; 68: 1401-6. Van Saase JLCM, et al. Epidemiology of Osteoarthrosis: Zoetermeer Survey. Comparison of radiologic osteoarthrosis in a Dutch population with that and ten other populations. Annual Rheumatoid Disease 1989; 48: 271-80.

POST CONCUSSIVE SYNDROME FOLLOWING MOTOR VEHICLE TRAUMA

I have previously addressed mild traumatic brain injury (MTBI) in our newsletter. I readdress due to the large percentage of missed diagnosis we see in this office during our assessment of previously examined patients. MTBI represents 70-90% of all treated brain injuries [1]. Today the combination of high resolution MRI with specific tailoring of scanning protocols provides evidence of microstructural abnormalities in MTBI patients [2]. Appropriate physical examination including vital signs, radiological findings, and a comprehensive neurologic examination is critical to the assessment of MTBI.

If you don’t know what to look for, you can’t find it.

1. Cassity JD, et al. Incidence, risk factors and prevention of mild traumatic brain injury: results of the WHO Collaborating Centre Task Force on Mild Traumatic Brain Injury. J Rehabil Med, 2004 Feb; (43 Suppl):28-60..
2. Umile EM, et al, Dynamic imaging in mild traumatic brain injury: support for the theory of medical temporal vulnerability. Arch Phys Med Rehabil,
2002 Nov: 83(11): 1506-13