Conclusion.– In this study, it is not highlighted that an isokinetic profile may be associated with a history of injury of the shoulder despite a trend toward lower ratio in subjects with a history of injury to the shoulder. A prospective study is under progress.

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Teres major and latissimus dorsi myotendinous injury in a professional boxer

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Keywords: Shoulder injury; Teres major; Boxing injury

Introduction.– Shoulder injuries are common sports pathologies. We describe the diagnosis and management of a rare injury: a teres major tendon tear.

Case report.– A 28-year-old man who was a professional boxer, was admitted for left axillary pain after an uppercut. On examination, he had no apparent abnormalities but had painful limitation of active range of motion (ROM) with no limitation of passive ROM. There were no signs of neurovascular deficit, rotator cuff injuries or gleno-humeral instability. During manual strength testing, isometric teres major and latissimus dorsi contractions were painful. Ultrasound and MRI showed teres major and latissimus dorsi tear at the myotendinous junction. He was treated conservatively with rehabilitation (specific and global muscular strengthening). He returned to competition 4 weeks later.

Discussion.– There are only few (21) reported cases of teres major tears, and most occurred in competitive athletes. None had been reported on boxers. These injuries are underdiagnosed as the functional deficit is of minimal consequence in daily life but may be unacceptable in an athlete. The low prevalence of these tears may be explained by the lack of visualization on conventional shoulder MRI due to the narrow field of view. We thus insist on the need for a thorough clinical examination followed by echography and MRI with adapted windows. Our case shows conservative treatment was successful, with good outcomes and return to the competition level.

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Shoulder muscle strength is correlated with volleyball smash velocity

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Introduction.– Smash effectiveness represents a determining element in volleyball. To compete at a high level, the player must, in particular, produce a spike characterized by a high ball velocity at an optimal angle between upper arm and trunk.

Some muscular features could influence ball velocity during the volleyball smash.

Methods.– A prospective study of 11 women volleyball players from the Switzerland national divisions (League B) and 7 women who practice in recreational volleyball (control group) underwent an isokinetic assessment of the dominant shoulder. Ball velocity performance (radar gun) and angle of smash (video analysis-Dartfish system) during a smash test were measured. We tested the relationship (Pearson correlation test) between the isokinetic parameters and field performances represented by ball velocity. We also compared control group and League B player data by student-t test.

Results.– Ball velocity correlated significantly with strength performance of the dominant shoulder (internal and external rotators) in the concentric mode at 60 °s for internal rotators (R = 0.6, P = 0.04) and external rotators (R = 0.7, P = 0.01) in League B group. Negative correlation was established with the eccentric external rotator at 30 °s and ball velocity (R = -0.8, P = 0.02) for control group. League B players differed from control players by higher ball velocity (P < 0.05) and muscle shoulder strength for all angular speed, and by lower angle smash (P < 0.05).

Conclusion.– Some specific strength correlated significantly with spike performance in high-level volleyball practice. Our results could provide useful information for training management and propose some reflections on injury prevention.