Discussion.– The WOSI was found to correlate with the Walch-Duplay score. However, the WOSI was more sensitive than the Walch-Duplay score for the assessment of patient satisfaction. It is likely that both self-administered questionnaires and physical examinations are complementary for an accurate investigation of the functional objective and subjective outcome after shoulder stabilization surgery.

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CO37-003-e Risk of recurrence and return to sport after surgery for anterior shoulder instability

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Keywords: Shoulder instability; Latarjet; Bankart; Recurrence; Sport

Purpose.– To determine the risk of recurrence during the return to sport after surgery for anterior shoulder instability.

Methods.– The authors followed by telephone 117 athletes who benefited from surgery between 2005 and 2011: Latarjet (79 patients) or Bankart (38 patients). All are competitors, minimum regional level and responded to the questionnaire after surgery: 26 months means (11 to 55 months) for group “Latarjet” and 28 months (14 to 45 months) for group “Bankart”.

Results.– The 117 athletes who responded have the same characteristics in terms of gender, sport type, laterality, and side of surgery. The group “Latarjet” concerned slightly younger patients (23/25 years), and higher level than group “Bankart”, reflecting a trend to operate more frequently by Latarjet for the concerned slightly younger patients (23/25 years), and higher level than group “Bankart”. Return to competition is also higher for this group (91%-79%).

Conclusion.– These figures about resuming sports involving the use of the upper limbs are below those of competitive throwing sports [1]. Surgeons have little inclination to prescribe muscle gain before resuming a sporting activity. Several studies show that retrieving full muscle strength is not done until one year after surgery [2]. Faced with growing calls for reinforcement of physical activities from patients over 50, the interest of a functional recovery of the operated cuff on the ability to resume sport needs assessing.

References

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CO37-005-e Muscular imbalance: Shoulder injury risk factor in handball player?

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Keywords: Shoulder; Isokinetic; Muscular imbalance; Handball

Objective.– The purpose of this study was to verify whether the handball players with a history of shoulder injury have a particular isokinetic profile and if it can be regarded as a risk factor for injury.

Population.– Seventy men and five women playing in French and Belgian handball championships (average age 23.57 years ± 4.19 years) participated in this study.

Materials and methods.– A preseason questionnaire helped fill in handbalлистiques characteristics of each player, its history and pathological lesions more specifically on the shoulder. Isokinetic evaluation of shoulder rotator muscles in concentric mode at 60°/s and 240°/s and at 60°/s in eccentric mode was performed to identify, early in the season, isokinetic profile of each subject. Various parameters were analyzed: peak torque (PMF) of external rotators (RE) and internal rotators (RI) and peak torque ratios of RE compared to RI, concentric/concentric, eccentric/concentric (combined ratio) and concentric/ eccentric (functional ratio).

Results.– According to history of shoulder injuries, two groups were defined: the group of shoulder injury (GI, n = 42) and the healthy group (GH, n = 32). Peak torque asymmetry (dominant side vs nondominant) for the GH and GI are not significant. For the ratio of concentric/concentric at 60°/s, we note that for the dominant arm, the presence of a previous injury changes the ratio departs from the standard (0.73 ± 0.13 to 0.8), unlike subjects in the GH. This difference is not significant but a trend seems to emerge (p = 0.0738). Whether in the GI or GH, functional and combined ratios are lower, but not significantly, to the standard, expected with lower ratios in the GI.
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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Keywords: Isokinetics; Shoulder; Motion analysis; Sports

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 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.

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