

2<sup>nd</sup> International Conference on

# Sports Medicine and Fitness

April 18-20, 2016 Dubai, UAE

## Monitoring training load and fatigue in professional football (soccer)

Karim Chamari  
ASPETAR, Qatar

Appropriate periodization of training is of paramount importance for optimal performance in sport. Many tools have been developed aiming at helping the technical staff to better monitor training load and fatigue in professional football. In this context, the aim of the present talk is to present 2 validated and easy-to-use tools. (1) The session-RPE method for quantifying training has become popular tool for monitoring training periodization in various sports and many football teams have adopted this approach. This method allows coaches to monitor individual player's perception of training loads (TLs) and follow its periodization. Additional psychometric tools can also be used to assess how players are responding to training. (2) The Hooper Index allows assessing the status of the player with respect to his/her perceived sleeping quality and the quantity of stress, muscle soreness and general fatigue. The effectiveness of the training programs depends on the successful manipulation of the total training load. Appropriate and balanced manipulation of training load and subsequent recovery allows for the optimal balance between the effects of training induced catabolism and the re-establishment of energy stores and protein catabolism in the regeneration process. It is suggested that there is a super compensation in performance as the athlete adapts to the stress imposed by the training bout. The presentation will provide the scientific validation evidence of these tools in addition to practical examples of their daily use with professional football players.

[karim.chamari@aspetar.com](mailto:karim.chamari@aspetar.com)

## Anterior cruciate ligament reconstruction associated with extra-articular tenodesis: A prospective clinical and radiographic evaluation at long term follow-up

Maurilio Marcacci  
Rizzoli Orthopedic Institute, Italy

The persistence of rotatory laxity has been reported even after cases of uneventful ACL reconstruction, suggesting that a single-bundle intra-articular reconstruction could not be sufficient to completely restore rotational knee stability in certain patients. In 1993, we developed a unique surgical procedure that utilizes the hamstring tendons with intact tibial insertion distally for an intra-articular single bundle over-the top ACL reconstruction and extra-articular augmentation performed with the remnant part of the hamstring graft. At 11 years follow-up, the IKDC score demonstrated good or excellent results in 90.7% of patients. Ligament arthrometry using the KT-2000 arthrometer demonstrated that only 2 patients had >5 mm manual maximum side-to-side difference in laxity. The mean Tegner activity score was 4.5, while the mean Lysholm score was 97.3 and the mean subjective score was 90.0%. We evaluated the results of the latter technique with computer-assisted navigation and found that the addition of an extra-articular procedure to the single-bundle ACL reconstruction successfully controlled coupled tibial translation during the Lachman test and reduced anteroposterior laxity at 90° of flexion. The technique presented is a highly reproducible procedure in our hands, with a high percentage of satisfactory results, and eliminates the risk of surgical error that may be associated with placement of the femoral tunnel, it uses only 3 titanium staples for graft fixation, which results in a reduction of surgical costs, and it is capable of maintaining good stability, and without an increased rate of degenerative arthritis at more than 10 years' follow-up.

[m.marcacci@biomec.ior.it](mailto:m.marcacci@biomec.ior.it)

### Notes: