

rehabilitation was associated with significantly improved pain and function by 6 weeks post-operative.

Low Vitamin D is Associated with Lower Extremity Strains and Sports Hernia Injuries in NFL Combine Athletes

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Introduction: Vitamin D has been linked to overall muscle function and strength, with recent findings depicting a correlate between preseason performance and vitamin D status in NFL athletes. The purpose of our study is to evaluate the association between serum vitamin D level and the prevalence of lower extremity muscle strains or sports hernia injuries in elite level athletes at the National Football League (NFL) combine.

Methods: This is a retrospective study of 214 prospective professional athletes who participated in the 2015 NFL combine. Baseline demographic data was collected, including age, body mass index (BMI), injury history specific to lower extremity muscle strain or sports hernia, at least one missed game due to the specified injury, and Functional Movement Screen (FMS) testing scores. Serum 25(OH) vitamin D was collected at the combine visit; and defined as normal ≥ 32 ng/mL. Overall summary statistics were calculated in terms of means and standard deviations for continuous variables and frequencies and percentages for categorical variables.

Results: There were 107 (50%) players reporting previous sports hernia or lower extremity strains, who also had lower vitamin D levels than athletes without associated injury history (29.7 ± 11 ng/mL vs. 34.0 ± 13 ng/mL; $p=0.01$). Overall incidence of below normal serum vitamin D was present in 126 players (59%); including 16 (13%) with severe deficiency (<21 ng/mL). Group comparisons between low and normal vitamin D levels showed no difference in age, race, BMI or FMS scores recorded at the NFL combine (Table I).

Conclusion: Low serum vitamin D is associated with a history of sports hernia or lower extremity strains in NFL combine athletes. While no difference was found in FMS testing, low vitamin D may contribute to injury susceptibility or muscle dysfunction in this select population.

Anterior and Posterior Ankle Impingement by One-Step Arthroscopic Treatment: 10years Follow-up Prospective Study by Standard Anterior and Double Postero-Medial Portals

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Introduction: Simultaneous anterior and posterior ankle impingement is preferably treated by 2steps surgery. Aiming to avoid postponing further surgery in prone position, authors focused a procedure which addresses posterior ankle disorders through 2postero-medial portals, after anterior arthroscopic step without changing patient's assessment. They present this 10years follow-up prospective study.

Methods: In period January 2001-January 2015 78 ankle affected with both side pathology, were submitted to arthroscopic treatment by standard anterior portals and double postero-medial approach, maintaining supine position and addressing simultaneously one-step surgery anteriorly and posteriorly. Reproducing same posterior portals of prone procedure, peroneal approach is rotated 90°medially lying 5cm superiorly to medial one along Achilles' tendon. FHL tendon landmark prevents damage to posterior tibial bundle. Patients were evaluated with pre-op and post-op x-ray scan and AOFAS scale.

Results: At final survey 71patients have been evaluated, being 7 lost. Wilcoxon test was utilized to compare score values reported at admission time, after 12months and after 10years. AOFAS scale, steady improved from preoperative mean 38.73(range21-51) to 1year post-operative=89.87 and to further 95.4 at 10years. The preop vs/postop 12months was $p\text{-value}=0.00051$ and postop 12months vs/10years $p\text{-value} = 0.03628$. Big improvement was reported in study group at 10years follow-up compared to control group (the former $p\text{-value}=0.0004883$, the lesser $p\text{-value}=0.0009766$, inferior to threshold $p=0.05$). None patient reported any complication, any problem to posterior tibial nerve territory or to medial talus skin sensitivity. Varicose veins caused in 3patients posterior ankle swelling and oedema for 3weeks. Four patients have been submitted to new surgical procedure for same disorder.

Conclusion: In open surgery as in arthroscopic procedure, supine assessment made impossible to reach both the joint spaces without intra-operative patient's repositioning. Maintaining supine assessment during arthroscopy, this technique allowed to reach disorders in posterior ankle compartment after anterior treatment by standard portals. Absence of neurovascular lesions confirmed safety and reproducibility of this procedure providing anatomical landmarks respect.

Arthroscopic Brostrom versus combined repairs of ATFL and CFL: A Biomechanical Comparison of Repair Techniques

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