706  May 29 4:30 PM - 4:45 PM  
**Surgical Outcomes of Os Trigonum Syndrome in Dancers**  
Keifer P. Walsh. Alabama College of Osteopathic Medicine, Birmingham, AL.  
Email: walshkp@acom.edu  
(No relationships reported)  

**PURPOSE:** Management of ankle pain in dancers can be challenging due to the complex demands placed on their ankles and feet. Despite the prevalence of ankle pain or injuries in this population, literature on the outcomes of surgical approach is limited. The hypothesis of this study was that dancers return to their previous level of activity following open excision of a symptomatic os trigonum syndrome.  

**METHODS:** We followed 54 ankles (44 patients, 91% female, mean age 18.2 years) in patients who underwent surgery for posterior impingement. Dance style varied across patients but was largely ballet and included many professionals. All patients completed a specific rehabilitation protocol prior to surgical discussions and eventual excision of the os trigonum was done through an open approach. All patients then committed to a specific rehabilitation program and gradually returned to dance. Outcomes were evaluated with the Veterans Rand 12 Item Health Survey (VR-12) Mental and Physical Scores, Foot Function Index Revised (FFI-R), Visual Analog Scale (VAS) scoring, and patient satisfaction prospectively and postoperatively. This study was conducted in compliance and approved with a local Institutional Review Board (IRB).  

**RESULTS:** Most recent follow-up was a mean 32.3 months with data collected across a range of 6 weeks to 8 years post-operative. Between pre-operative and most recent postoperative follow-up, there was no significant difference in VR-12 Mental Scores (mean scores of 55.4 and 53.9), however Physical Scores increased 37.8 to 51.2, respectively. Significant improvement was also seen in both the FFI-R cumulative score (63.2 to 42.4) and VAS (54% to 17%). Major complications included transient sural nerve paresthesia and scar tissue buildup that resolved over time. Overall, patients were extremely satisfied with their result (92.7% post-operative satisfaction).  

**CONCLUSIONS:** An open os trigonum excision is fairly simple, has a low complication rate, and proves to have a high success rate in returning athletes back to their sport of choice. In this study, dancers of varying level and primary style improved significantly according to various clinical measures and maintained thriving postoperative careers. Successful return to dancing relied greatly on well-structured physical rehabilitation therapy.

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**Comparison of Total Body Composition and Bone Mineral Density Measures in Female Collegiate Athletes**  
Kyle Leppert, Peter Lisman, Nicolas D. Knuth, Nathan Wilder, Devon Dobrosielski. Towson University, Towson, MD.  
Email: kleppert@towson.edu  
(No relationships reported)  

Body composition and bone mineral density (BMD) are important factors in sport performance and the overall short and long-term health of athletes. Despite this function, few investigations to date have documented total body composition in female collegiate athletes. Further, we are unaware of any studies examining both total body composition and BMD in this population.  

**PURPOSE:** To generate descriptive data for total body composition and BMD in a large sample of female collegiate athletes using dual X-ray absorptiometry (DXA) and examine differences between 10 competitive sports.  

**METHODS:** A total of 231 female collegiate athletes (19 ± 1yrs; 167 ± 8.9cm; 49 ± 6.1kg; 2.4% Asian, 15.2% Black, 1.4% Hispanic, 80.6% White, 0.5% Other) underwent DXA: basketball (BB; n=22), cross country (CC; n=11), field hockey (FH; n=25), gymnastics (GYM; n=23), lacrosse (LAX; n=42), soccer (SOC; n=27), swimming (SW; n=27), tennis; (TN; n=11), track (field only; TR; n=7), and volleyball (VB; n=16). Descriptive statistics were calculated for total body fat percentage (BF%), and BMD. Differences in total BF% and BMD between sports were examined using a one-way Welch’s ANOVA test. Post-hoc testing was completed using the Games-Howell test.  

**RESULTS:** The mean BF% was 27.6±5.1% (range: 23.0 - 37.5%) while BMD was 1.306±0.11g/cm² (range: 1.17 - 1.45g/cm²); TR had the highest BF% (37.5±5.5%), followed by TN (31.1±4.0%) and LAX (29.3±4.8%), CC (23.0±6.9%) and GYM (23.5±2.9%) had the lowest. For BMD, TR had the highest (1.450±0.07g/cm²), followed by BB (1.404±0.12g/cm²) and VB (1.360±0.10g/cm²); CC had lower BMD compared to BB, FH, LAX, SOC, SW, TN, and TR (mean difference range: 0.25 - 0.57, p<0.01).  

**CONCLUSION:** Total body composition and BMD measures varied across female collegiate sports. These findings may assist sports medicine and strength and conditioning practitioners with identifying appropriate goal values for BF% and BMD in female collegiate athletes across various sports.

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**Awareness of the Female Athlete Triad in NCAA Cross Country Coaches**  
Anna G. Warner, Katherine H. Rizzzone, Scott Davis, Timothy Harvey, Robert D. Chetlin, Mercyhurst University, Erie, PA. 1University of Rochester Medical Center, Rochester, NY. 2Marshall University, Huntington, WV. (Sponsor: Paul M Gordon, FACSM)  
Email: awarene53@lakers.mercyhurst.edu  
(No relationships reported)  

The Female Athlete Triad is a pervasive, multifactorial morbidity amongst collegiate female athletes, particularly those participating in endurance sports. Cross country coaches’ awareness of the Triad within all NCAA divisions is unknown.  

**PURPOSE:** To assess National Collegiate Athletic Association (NCAA) cross country coaches’ awareness of the Triad components.  

**METHODS:** Ninety-nine Division I-III NCAA compliance officers were sent an email containing a request to disseminate a web-based survey to cross country coaches in their respective conferences. The web-linked instrument included: a study synopsis; an informed consent statement; and; the IRB-approved survey tool. Reminder emails were sent approximately two months after the original participation request. Statistical analysis, using JMP software, included frequency distributions and chi-square tests for categorical association. Significance level was set at p<0.05.  

**RESULTS:** Coaches (n = 143; mean age = 40.7 ± 11.9 years; mean coaching experience = 14.1 ± 10.3 years) from 45 conferences participated; 74% of respondents were male. All NCAA Divisions were equitably represented (I = 29.7%, II = 35.5%, III = 34.8%). While respondent majorsities: coach male and female athletes (82.1%); reported they were familiar with the Triad (73.4%); and; felt comfortable/very comfortable discussing diet (87.6%) and menstruation (65.6%) with female athletes, only 54% correctly identified all three Triad components (re: low energy availability, amenorrhea, low bone mineral density). Female coaches, however, were more comfortable than male coaches discussing menstrual issues (X² = 94.7, p<0.001). When compared to the other divisions, Division I coaches were more likely to: have Triad awareness (X² = 10.1, p<0.05); and; have athletes with access to registered dieticians (X² = 16.5, p<0.01) and sports psychologists (X² = 18.0, p<0.01).  

**CONCLUSION:** A slim majority of NCAA cross country coaches demonstrated comprehensive understanding of Triad components, but; resource disparities to effectively address the Triad exist between the NCAA divisions. Future research should examine how to increase coaches’ Triad awareness and education, and; optimize resources across NCAA divisions to reduce the negative outcomes associated with this common morbidity.