Examining DEXA as a Possible Screening Tool for Obstructive Sleep Apnea in Collegiate Athletes.
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**Purpose:** Football players and wrestlers often have anthropometric features that increase their risk for obstructive sleep apnea (OSA). Our goal is to examine the relationship between neck tissue composition and STOP-Bang and Epworth scores. **Methods and Study Design:** Cross-sectional cohort study. Division-I football and wrestling athletes completed a survey that included measures of sleep quality and quantity. STOP-Bang and Epworth scores associated with increased risk for OSA are > 3 and > 11 respectively. Multiple anthropometric measurements including BMI, neck circumference, blood pressure, and DEXA body composition scores and were obtained. DEXA scores were based on a region of interest (ROI) centered between C4-C7. We used a paired t-test and ANOVA to determine if any significant relationships exist. **Results:** 125 males athletes completed the questionnaire. 40.8% had STOP-Bang scores of ≥ 3. 29.6% had Epworth scores of >11. Those with STOP-Bang scores ≥ 3 had a significantly higher fat percentage (12.9 +/- 6.7%, p <0.001), fat mass (168 +/-120 g, p<0.001), and lean mass (1036 +/- 187g, p <0.001), but no difference in lean percentage (p=0.078) at the ROI when compared to those who had STOP-Bang scores of <3. Those with Epworth scores of >11 had no significant difference in neck composition compared to those with scores of <11. **Conclusions:** Many athletes scored highly on validated OSA screening questionnaires. Neck composition at the ROI was significantly correlated to STOP-Bang scores, but not Epworth scores. Whether or not this will prove to be predictive of OSA is yet to be determined. Subjects who have screened positive are currently undergoing diagnostic testing. **Significance:** DEXA composition scoring at the C4-C7 area may prove to be a useful in OSA screening, but further diagnostic testing is needed to assess if it is predictive of OSA.