ARE YEARS OF TRAINING AN INDEPENDENT PREDICTOR OF ATRIAL FIBRILLATION IN OLDER RUNNERS?

Oral Contributions
Room 3
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Background: Accumulating data supports a relationship between long-term participation in distance running and atrial fibrillation (AF). In the present study we assessed whether accumulated years of running were related to reported AF and whether this relationship was independent of traditional risk factors for AF, including chronologic age.

Methods: Data regarding medical history and training characteristics were assessed for 2819 runners and endurance athletes who participated in the MASTERS Athletic study, a web-based survey of endurance athletes ages 35 and older. Data were stratified by those who reported a diagnosis of AF vs. those who reported no AF.

Results: The mean age of the cohort was 48.4yrs (range 35-90yrs). The median range of running career duration was 11-15 years. AF was reported by 69/2819 respondents (2.4%). Runners reporting AF were significantly older (59.8yrs vs 48.1yrs, p<0.001) and more likely to have hypertension (47.1% vs. 20.3%, p<0.001). There was a significant correlation between accumulated years running and % of runners reporting AF (1.2%, 1.5%, 2.4%, and 6.1% for 30yrs of running, respectively, p<0.001). In a multivariable logistic regression model which included traditional risk factors for AF and training characteristics, age (OR 1.076, 95% CI 1.041-1.113, p<0.001), hypertension (OR 1.972, 95% CI 1.029-3.779, p=0.041), and years of accumulated running (OR 1.162, 95% CI 1.002-1.348, p=0.047) remained independent predictors of AF. In contrast, diabetes, average running pace, use of speed training, and participation in marathons/ultramarathons did not independently predict AF.

Conclusion: In older runners accumulated years of running (but not running pace, use of speed work, or participation in marathons/ultramarathons) appear to relate to the risk of AF independent of traditional risk factors for AF. Importantly, the relationship of years of running to AF appears to not be simply related to chronologic age. Physicians should consider the risk of AF in long-term endurance sport participants regardless of athlete age and traditional AF risk factors.