Abstract: P734

Coronary atherosclerotic burden in recreational male veteran athletes with low to intermediate cardiovascular risk

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Topic(s):
Coronary Artery Disease - Other

Citation:
Background: Although the evidence describing a significant proportion of veteran athletes with coronary atherosclerotic disease (CAD), its prevalence in recreational athletes with low-intermediate cardiovascular (CV) risk is not established. This study sought to characterized the coronary atherosclerotic burden in recreational veteran male athletes with low-intermediate CV risk.

Methods: Asymptomatic male athletes aged =40 years old with low-intermediate risk, who exercised >4 hours/week for >5 years, underwent cardiac computed tomography (CT) - coronary artery calcium (CAC) score and angiography. High coronary atherosclerotic burden was defined as at least one of: CAC score >100; CAC score =75th percentile; obstructive CAD; disease involving left main, 3-vessels or 2-vessels including proximal anterior descending artery; segment involvement score >5; CT-adapted Leaman score =5. Athletes were categorized by tertiles of volume of exercise, calculated by Metabolic Equivalent Task (MET) scores.

Results: A total of 105 athletes were included, all with SCORE <4%, mainly engaged in high-dynamic sports. The median volume of exercise was 66 [44; 103] METs/h/week, with 8±5 hours-training/week and 17±10 years of exercise. A high coronary atherosclerotic burden was present in 27 (25.7%) athletes. Ten (9.5%) athletes had CAC score >100, 13 (12.4%) =75th percentile and 6 (5.7%) obstructive lesions. The extension and severity of coronary plaques did not differ according to the volume of exercise. Conclusions: The prevalence of subclinical CAD detected by cardiac CT in recreational male veteran athletes with low-intermediate CV risk was high. Up to a quarter of our cohort had a high coronary atherosclerotic burden.
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