A new age configuration of world’s population age is occurring due to life expectancy augmentation and birth rate reductions. Aging is raising deaths by cardiovascular diseases, which is a trending cause of death among the very elderly. Sarcopenia, cell senescence and frailty syndrome are usually involved in functional disability commonly observed during the aging process, and also associated to atherosclerotic disease. This study aims to assess the association between anthropometric features and the occurrence of ST segment elevation myocardial infarction (STEMI) in the very elderly. A case-control study was carried out with 80 years or older participants: 50 were STEMI patients (cases) and 207 were free of manifested cardiovascular disease (controls). Anthropometric features were obtained by height, weight, abdominal circumference and 4-skinfold measures. Fat body mass was calculated by Durnin and Womersley method. In univariate analysis, t-Student and Mann–Whitney tests were used for continuous variables with normal and no-normal distribution, respectively, and chi-square was used for categorical variables. Multivariate analysis was carried out by binary and ordinal logistic regression to assess the association between anthropometric features and STEMI. Population-attributable risk (PAR) was calculated for each significant independent predictor (with a p-value < 0.05). Differently from young adults, the body mass index augmentation seems not to be associated to STEMI in the very elderly (OR: 0.44 [95% CI 0.18–1.11]; p = 0.082); however, the increasing percentage of overall body fat and abdominal circumference seem to protect very elderly participants from STEMI occurrence (OR: 0.26 [95% CI 0.10–0.69]; p = 0.007 and OR: 0.20 [95% CI 0.08–0.49]; p = 0.001, respectively). Advancing of age has no influence on STEMI occurrence. The PAR for low abdominal circumference is 43.34% [95% CI 12.21–63.44] and for low body fat percentage is 52.00% [95% CI 15.92–77.30]. As a conclusion, the causal factors of cardiovascular diseases for young adults seem to be different in the very elderly. Probably, lowering of body fat – including abdominal fat – could be directly associated to elderly frailty, increasing the cardiovascular risk of STEMI.

doi:10.1016/j.bbacli.2015.05.008

A40750
Anthropometric features and myocardial infarction in very elderly people
Alessandra M. Campos, Meyriane Almeida, Valeria N. Figueiredo, Wladimir M. Freitas, Andrei C. Sposito

Universidade de Brasília, Brasilia, DF, Brazil
Universidade Estadual de Campinas, Campinas, SP, Brazil

A new age configuration of world’s population age is occurring due to life expectancy augmentation and birth rate reductions. Aging is raising deaths by cardiovascular diseases, which is a trending cause of death among the very elderly. Sarcopenia, cell senescence and frailty syndrome are usually involved in functional disability commonly observed during aging process, and are also associated with atherosclerotic disease. This study aims to assess the association between anthropometric features and the subclinical atherosclerosis in the very elderly. Enrolled participants were completely free of manifested cardiovascular disease (n = 209). Body constitution – muscle, fat and bone mass – was obtained by dual-energy X-ray absorptiometry (DEXA). Coronary Artery Calcium (CAC) score was used to assess subclinical atherosclerosis. In univariate analysis, ANOVA and Kruskal–Wallis tests were used for continuous variables with normal and no-normal distribution, respectively; and chi-square was used for categorical variables. Multivariate analysis was carried out by ordinal logistic regression to assess the association between some elements of the body constitution and subclinical atherosclerosis. Significant independent predictor was considered, if p-value < 0.05. In the very elderly, the overall fat mass seems to be not associated to subclinical atherosclerosis (OR: 1.47 [95% CI 0.61–3.54]; p = 0.395), but the appendicular fat percentage shows a direct relation to the CAC score in this population (OR: 2.65 [95% CI 1.12–6.25]; p = 0.026). Otherwise, the overall bone and muscle mass are oppositely related to CAC score (OR: 2.69 [95% CI 1.15–6.28]; p = 0.022 and OR: 2.87 [95% CI 1.19–6.63]; p = 0.018; respectively), whereas the appendicular muscle percentage seem to underlie this same relation (OR: 2.65 [95% CI 1.12–6.25]; p = 0.026). Bone percentage has not shown any association to CAC score. As a conclusion, in very elderly people, some elements of the body constitution seem to be associated to subclinical atherosclerosis. Appendicular fat percentage showed a direct association to CAC score. Sarcopenia and osteopenia, well-known aging mechanisms involved in atherosclerotic disease, were confirmed in our results by the opposite relation of appendicular muscle percentage, overall bone and muscle mass lowering to the increased CAC score.

doi:10.1016/j.bbacli.2015.05.009

A40766
Biopsychosocial features and myocardial infarction in very elderly patients
Alessandra M. Campos, Andrea Placido Sposito, Thiago Quinaglia, Valeria N. Figueiredo, Wladimir M. Freitas, Andrei C. Sposito

Universidade de Brasília, Brasilia, DF, Brazil
Universidade Estadual de Campinas, Campinas, SP, Brazil

The increasing life expectancy and the reducing birth rate are contributing to a fast aging process of world population. Aging and population growth are increasing the rate of cardiovascular mortality, turning it up the leading cause among very elderly individuals. ST-segment elevation myocardial infarction (STEMI) is an uncommon condition, but highly fatal among the very elderly. Thus, this study aims to assess the biopsychosocial features that could be associated to STEMI in very elderly individuals. A case–control study was carried out with 80 years or older participants: 50 were STEMI patients (cases) and 207 were free of manifested cardiovascular disease (controls). Biopsychosocial features were evaluated by laboratorial tests, clinical examinations and psychological tests, such as Beck’s Depression Inventory and Geriatric Depression Scale. In univariate analysis, t-Student and Mann–Whitney tests were used for continuous variables with normal and no-normal distribution, respectively; and chi-square was used for categorical variables. To assess the association between biopsychosocial variables and STEMI, multivariate analysis was carried out by binary and ordinal logistic regression models. Population-attributable risk (PAR) of each significant independent predictor (with a p-value < 0.05) and 95% confidence intervals (95% CI) were calculated. Six biopsychosocial features were identified as independent predictors of STEMI in very elderly individuals: current smoking (OR: 6.58 [95% CI: 1.99–21.70]; p = 0.002; PAR: 9.79%), moderate to severe depressive symptoms...