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COMMENTS

Comment on "Calf circumference and risk of cardiovascular disease"

Dear Editor,

I have read the studies of Hsiang *et al.*, investigating the relationship between calf circumference (CC) and risk of cardiovascular disease (CVD) in older patients.[1] The authors found that CC had a strongly negative correlation with CVD in both sexes.[1] The result makes valuable contributions to the literature, but some issues should be considered when determining CC and health outcomes in particular older adults.

CC is an anthropometric parameter that is easily applied and is widely discussed nowadays. Previous studies have shown that CC measurement can be used for frailty, malnutrition, sarcopenia and sarcopenic obesity.[2,3] Furthermore, it has been determined that CC can predict metabolic syndrome, cardiovascular events and mortality.[1,4,5] However, there is inconsistency in the results of the study in which CC and its cut-offs and clinical results were evaluated. Although one study found that low CC is associated with increased disability, in another study it was found that a high CC in populations with elevated frequency of obesity could be a marker of disability.[6,7] For example, in the study where Pérez-Zepeda and Gutiérrez-Robledo included 745 older adults aged >60 years, it was shown that CC >38 cm might be an indicator of disability and predict sarcopenic obesity.[7] In contrast, although Hsiang *et al.* found a negative correlation between CC and CVD, sarcopenic obesity determined by increased CC was also shown to be closely related to CVD and death.[1,8] The reason for this is that, in addition to the complications caused by sarcopenia, hormonal (such as insulin resistance) and inflammatory changes that occur as a result of infiltration of muscle tissue with adipose tissue in sarcopenic obesity might increase the risk of cardiometabolic complications.[8] Furthermore, the prevalence estimates for sarcopenic obesity is quite common (25%) in older adults.[8] Therefore, the difference in clinical outcomes determined regarding CC and its cut-offs might be due to the difference in obesity prevalence among those included in the studies or to the ignorance of sarcopenic obesity.

The obesity prevalence of the patients in the study by Hsiang *et al.* is not known, but when the body mass index averages are examined (24.90 ± 3.23 for men, 24.19 ± 4.72 for women), it is thought that the number of obese patients is not high.[1] Therefore, it is not surprising that an association has been identified between CC and CVD risk. However, if the number of obese patients was large in this study or if obese patients could be analyzed internally, perhaps a positive, rather than negative, correlation would be found between CC and CVD.

In conclusion, sarcopenic obesity should not be ignored, and should be evaluated separately while investigating the relationship between CC and CVD in older adults. Thus, contradictory results associated with CC can be avoided.

Disclosure statement

The authors declare no conflict of interest.

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Comprensive Geriatric Assessment in hospitalized older patients with COVID-19

Dear Editor,

We read with great interest Sano *et al*.'s recent article in *Geriatrics & Gerontology International* entitled "COVID-19 in older adults: Retrospective cohort study in a tertiary hospital in Japan," which was about 26 patients with COVID-19 infection, admitted to tertiary and partner hospitals in Saitama, Japan.[1]

We would like to reinforce the concept of geriatrics as a science of complexity characterized by the use of a specific assessment tool such as the Comprehensive Geriatric Assessment (CGA).

Indeed, it is common knowledge that the analysis of the data collected with the CGA is particularly useful and effective in the management of geriatric symptoms and syndromes, specifically in situations of complexity/emergency, the recent COVID-19 pandemic among these.[2]

Among the indices used in the hospital setting, the Multidimensional Prognostic Index (MPI) has been identified as a well-calibrated tool with a good discrimination and accuracy both for short- and long-term mortality.[3,4] Moreover, the MPI is the only one based on information from a CGA that explores comprehensively not only health aspects, but also functional, cognitive and nutritional domains, as well as cohabitation status.

MPI total score is the sum of standardized and extensively validated rating scales, widely known by the clinicians[3] and expressing it as a score from 0 to 1. Three grades of MPI were identified: low risk, 0.0–0.33; moderate risk, 0.34–0.66; and severe risk, 0.67–1.0.[3]

We identified 88 patients with COVID-19 consecutively admitted at "Pugliese-Ciaccio" General Hospital, Catanzaro, Italy, from March 15 to October 15, 2020. Twenty-seven (45.76%) patients were ≥65 years old with a mean ± SD age of 77.96 ± 8.71 years.

MPI was used. Delirium was evaluated using the 4AT.[5] The patients' demographic, clinical and CGA data are listed in Table 1. The prevalence of delirium was 29.63%; with 0.0% for MPI-1 (low risk), 37.5% MPI-2 (moderate risk) and 62.5% MPI-3 (severe

Table 1 Demographic, clinical and Comprehensive Geriatric Assessment data in hospitalized older patients with COVID-19

	Total	MPI-1, low risk	MPI-2, moderate risk	MPI-3, severe risk	*P*
Age, years, mean ± SD	77.96 ± 8.71	69 ± 4	78.71 ± 8.51	84.40 ± 5.72	0.011
Sex, male, %	48	60	18	62	NS
Presenting symptoms, %					
Fever	74	80	71	80	NS
Dyspnea	96	100	94	100	NS
GI symptoms	33	40	29	40	NS
Cough	67	60	71	60	NS
SPMSQ, mean ± SD	5.78 ± 3.10	0.80 ± 1.30	6.53 ± 2.21	8.20 ± 0.83	0.000
ADL, mean ± SD	1.74 ± 2.14	5.40 ± 0.89	1 ± 1.41	0.60 ± 0.54	0.000
IADL, mean ± SD	1.52 ± 2.77	6.40 ± 2.07	0.53 ± 1.50	0 ± 0	0.000
CIRS, mean ± SD	6.22 ± 2.95	2.80 ± 2.04	6.41 ± 2.57	9 ± 1.22	0.000
ESS, mean ± SD	12.63 ± 3.31	16.60 ± 0.89	10.82 ± 2.76	14.80 ± 0.83	0.000
MNA, mean ± SD	8.63 ± 2.40	10.60 ± 1.51	7.47 ± 1.97	10.60 ± 2.07	0.002
Drugs, mean ± SD	8.07 ± 2.36	6.2 ± 1.30	8.53 ± 2.57	8.40 ± 1.67	NS
Adverse outcomes					
Delirium (4AT ≥4), %	29.63	0	37.5	62.5	0.000
In-hospital death, %	25.98	0	42.86	57.14	0.004

ADL, activities of daily living; CIRS, Comorbidity Index Rating Scale; ESS, Exton-Smith Scale; IADL, instrumental activities of daily living; MNA-SF, Mini Nutritional Assessment–Short Form; SD, standard deviation; SPMSQ, Short Portable Mental Status Questionnaire.