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Comment on "Role of monocyte to high-density lipoprotein cholesterol ratio in predicting left atrial enlargement in hypertensive patients"

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Dear editor,

We are pleased to read the article published by Celik and Karaaslan[1] entitled "Role of monocyte to high-density lipoprotein cholesterol ratio in predicting left atrial enlargement in hypertensive patients". The results of this study revealed that the increased monocyte-to-high-density lipoprotein cholesterol ratio level was associated with hypertension and increased left atrial volume indexes. This study may provide new information on the prevention measure to hypertensive patients with left atrial enlargement. However, according to our opinion, some concerns should be raised.

The main concern is that baseline was inconsistent across two groups (Table 1). The monocyte-to-high-density lipoprotein cholesterol ratio may be increased with age. We found that the mean age in hypertension group was higher than that in the control group (53.1 years vs. 44.8 years). Thus, the age may be a confound factor that has an influence on the relationship between monocyte-to-high-density lipoprotein cholesterol ratio and hypertension. The correlation analysis of this study revealed significant associations between age and monocyte-to-high-density lipoprotein cholesterol ratio. Prior studies in population-based multicenter Danish Cardiovascular Screening trial of elderly men have also found an association between age and left atrium size[2]. The female predominance tended to be higher in the hypertension group than that in the control group (68.7% vs. 60.4%), although there was no significant difference in sex distribution between the two groups. In addition, since this is a prospective study, the relationship of monocyte-to-high-density lipoprotein cholesterol ratio and hypertension cannot be determined.

Another concern is that the inclusion and exclusion criteria for the control group are not provided in "Methods" section. Baseline characteristics of hypertension group and control group should be well balanced. Furthermore, we found a mismatch in gender, body mass index (BMI), and age between the two groups (Table 1).

Table 1. Demographic and clinical features of the study group.

	Overall (n=216)	Hypertension group (n=115)	Control group (n=101)	p-value
Age (year)*	49.2±9.2	53.1±7.7	44.8±8.7	<0.001†
Sex‡				
Female	140 (64.8)	79 (68.7)	61 (60.4)	0.258§
Male	76 (35.2)	36 (31.3)	40 (39.6)	
Diabetes mellitus‡	13 (6.0)	9 (7.8)	4 (4.0)	0.365§
Smoking‡				
Nonsmoker	136 (63.0)	80 (69.6)	56 (55.4)	0.048§
Ex-smoker	35 (16.2)	18 (15.7)	17 (16.8)	
Active smoker	45 (20.8)	17 (14.8)	28 (27.7)	
Alcohol consumption‡	1 (0.5)	0 (0.0)	1 (1.0)	0.468§
BMI (kg/m^2)//	29.4 (16.5–46.2)	31.2 (19.4–46.2)	28.3 (16.5–45.5)	<0.001¶
BSA (m^2)*	1.9±0.2	1.9±0.2	1.8±0.2	0.030†
LAVI (mL)*	37.8±12.1	43.3±12.4	31.4±7.9	<0.001†

BMI: body mass index; BSA: body surface area; LAVI: left atrial volume index; *Mean±standard deviation; †Independent samples t-test; ‡n (%); §Pearson's χ^2 and Fisher's exact test; //Median (range); ¶Mann-Whitney U test.

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CONCLUSION

We found that the mean age in the hypertension group was higher than that in the control group. The female predominance tended to be higher in the hypertension group than in the control group (68.7% vs. 60.4%), although there was no significant difference in sex distribution between the two groups. As age and gender are associated with the left atrium size, they affect the association between monocyte-to-high-density lipoprotein cholesterol ratio and left atrial enlargement in hypertensive patients.

AUTHORS' CONTRIBUTIONS

LQ: Validation, Visualization, Writing – original draft, Writing – review & editing. **LPH:** Methodology, Project administration, Resources, Software, Supervision. **CWL:** Methodology, Project administration, Resources, Software, Supervision.

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