



## Editorial

## Socioeconomic status and cardiovascular disease

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Schultz et al. reviewed the association between socioeconomic status (SES) and cardiovascular disease (CVD) in high-income countries with special reference to income, education, employment status, and neighborhood socioeconomic factors [1]. They comprehensively evaluated biological, behavioral, and psychosocial risk factors of CVD, although cultural and regional differences in SES make it difficult to generalize the association. They also intended to integrate SES indicators from four components, but there were different meaning in each component of SES. Wiernik et al. reported the association between depressive symptoms and the risk of coronary heart disease (CHD), stratified by SES with education, occupational status, and household income [2]. Depressive symptoms were assessed using the Center of Epidemiologic Studies Depression scale, and the Framingham risk equation was used to assess the 10-year risk of CHD. In men, occupational status was the only effect modifier on the association between depressive symptoms and the risk of CHD. However, no effect modification was found in each SES indicator in women.

In addition to the sex differences in the association [2], Kollia et al. reported the generation gap in the association [3]. They used education and annual income as indicators of SES to determine the effect of low SES on the 10-year CVD incidence. Low SES at ages older than 45 years was independently associated with an increased 10-year CVD incidence, which was not observed in younger participants. As they did not use occupational status as an indicator of SES, further studies are needed to specify the components of SES for the analysis.

Regarding the occupational status, Virtanen et al. examined the effect of low occupational class in employees with CVD on the risk of disability retirement [4]. The combination of low occupational class and CVD had an accelerated effect on disability retirement, and they pointed out the synergistic effect of low occupational class and CVD on disability retirement. Caution should be paid to workers with low occupational class and CVD. Furthermore, Garshick et al. reported that male employees in the business sector showed significant elevation of carotid intima-media thickness compared to that in factory workers [5]. Although there are difficulties in handling occupational class as a risk factor of CVD [6], Garshick et al. clarified that occupational class was associated with sub-clinical atherosclerosis. Information on the content of occupations would be useful as one of the risk factors for CVD, which would be partly associated with SES.

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