Screening for Aortic Aneurysm: Further Evidence is Required to Clarify the Issue

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In this issue, the JACC Study group provides a report regarding the relationship between body mass index and mortality from aortic aneurysm and dissection¹⁾. As the absolute risk of aortic aneurysm or dissection was not high enough²⁾, collecting Japanese evidence regarding mortality from aortic aneurysm and dissection was difficult. It requires studies with a large sample size and longer follow-up. In this study, more than 100,000 participants with a median follow-up of 18.8 years were required to demonstrate the relationship between BMI and mortality from aortic aneurysm and dissection. Even in these large cohorts with longer follow-up periods, approximately 250 deaths from aortic diseases were identified.

In this study, the authors clearly showed a positive relationship between BMI and aortic disease mortality. A positive relationship was evident in ever-smokers but not in never-smokers. The authors discussed that the difference might also explain the sex-related difference. This finding is in line with the US Preventive Service Task Force Recommendation³⁾. They recommend one-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men aged 65 to 75 years who have ever smoked. Thus, if high-risk groups for aortic diseases should be screened, obese people with a smoking history might be good candidates. However, in Japan, where the absolute risk of aortic diseases might be lower, careful discussion should be required whether abdominal echography should be adopted in screening settings. In fact, the US Preventive Task Force recommends against routine screening for AAA with ultrasonography in women who have never smoked and have no family history of

AAA, that is, the subgroups with lower absolute risks.

To clarify this issue, the incidence rate of new-onset abdominal aneurysm according to BMI category or smoking status must be determined, and the effect of early treatment on aneurysm must be understood. In any case, public health efforts toward banning smoking and reducing obesity might prevent aortic diseases.

Finally, understandably, the baseline information on this study was collected 30 years before (1988 to 1990). Thus, the situation and health condition should be different in the current Japanese population. To obtain such better quality evidence from the Japanese population, a huge size cohort with follow-up should be regularly established and maintained.

Conflicts of Interest

I have no conflict of interest.

References

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