cardiovascular diseases. The evidence supporting such contention is based on an established rationale supported by experimental laboratory and observational field studies, and a number of epidemiological studies. Meta-analyses have been carried out to derive exposure–response relationships that can be used for quantitative health impact assessments.91 Noise-induced sleep disturbance constitutes an important mechanism on the pathway from chronic noise exposure to the development of adverse health effects. The results call for more initiatives aimed at reducing environmental noise exposure levels to promote cardiovascular and public health. Recent studies indicate that people’s attitude and awareness in particular towards aircraft noise has changed over the years.92,93 Noise mitigation policies have to consider the medical implications of environmental noise exposure. Noise mitigation strategies to improve public health include noise reduction at the source, active noise control (e.g. noise-optimized take-off and approach procedures), optimized traffic operations (including traffic curfews), better infrastructural planning, better sound insulation in situations where other options are not feasible, and adequate limit values.

Funding

M.B. was funded through NIH (grant R01 NR004281). T.G. and T.M. receive from the Federal Ministry of Education and Research (BMBF01EO1003). T.G. also received from the Robert Müller Foundation, Foundation Heart of Mainz. The authors are responsible for the contents of this publication. Funding to pay the Open Access publication charges for this article was provided by the University Medical Center of Mainz.

Conflict of interest: none declared.

References

The list of references is available in the online version of this paper.

A growing accessory coronary artery aneurysm in the septal branch

Makoto Motoooka1, Tadashi Miyanishi2, Kazuo Yamanaka3, and Yoshihisa Nakagawa1*

1Department of Cardiology, Tenri Hospital, 200 Mishima-cho, Tenri, Nara 632-8552, Japan; 2Department of Radiology, Tenri Hospital, Tenri, Japan; and 3Department of Cardiovascular Surgery, Tenri Hospital, Tenri, Japan

* Corresponding author. Tel: +81 743635611, Fax: +81 743631530, Email: nakagawa@tenriyorozu.jp

Nine years ago, an asymptomatic 61-year-old woman was referred to our hospital because of diastolic murmur. Her medical history was unremarkable. An abnormal cavity in the interventricular Septum with the jet flowing from the left anterior descending artery was detected by Doppler echocardiography. Coronary angiography showed a large aneurysm in the septal branch (Supplementary material online, Video S1). Considering that rupture of the aneurysm might not immediately cause fatal intracardiac shunt, we continued close observation without surgery. Two years later, 64-slice computed tomography detected a smaller (with the diameter of 4 mm) accessory saccular aneurysm in the neck of the main aneurysm (Panel A). Seven more years later, however, the accessory aneurysm was found to become larger with the diameter of 11 mm by 320-slice computed tomography (Panel B, Supplementary material online, Video S2). It was adjacent to the epicardium and might cause cardiac tamponade if ruptured. Coronary angiography insufficiently delineated two aneurysms because of the backflow from the contracting aneurysms (Panel C, Supplementary material online, Video S3). This time we chose surgical option, considering the progression rate of the aneurysm and the surgical risk comparable with bypass surgery. The left anterior descending artery was ligated at both sides of the aneurysmal septal branch. Then, the distal segment of the left anterior descending artery was grafted by the left internal thoracic artery. Soon after the feeding artery was ligated, the aneurysms collapsed and disappeared. Post-operative computed tomography showed the intact arterial graft (Panel D). She was discharged without any complication.

Supplementary material is available at European Heart Journal online.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2014. For permissions please email: journals.permissions@oup.com