The mortality pattern in Japan is characterized by a low rate from coronary artery disease (CAD) and a high rate from cerebrovascular disease (CVD). Despite a large decrease in the past decades, CVD is still the cause of cardiovascular deaths in the Japanese population. Elevated blood pressure is a major contributor to the mortality and incidence of CVD. Despite an increasing trend in serum cholesterol levels in more recent years in Japan, the CAD mortality rate has remained relatively low because the average serum cholesterol level remains around 200 mg/dl. In contrast, atrial fibrillation (AF) is the most common sustained cardiac arrhythmia in clinical practice. The prevalence of subjects with AF is increasing in the general population and in hospital data. It may be caused by aging of the population and a stressful society. A recent study highlighted that the burden will increase during the next 20 years, because of the aging population, especially in developing countries.

In the recent data on secondary prevention, recurrent stroke and vascular event rates have declined substantially over the past 5 decades because of improved blood pressure control and more frequent use of antiplatelet therapy, as the leading causes. To avoid the incidence of AF, the management of established risk factor such as hypertension, diabetes, obesity, and cigarette smoking is very important. The ARIC Study suggested that more than half of the AF burden is potentially avoidable through the optimization of risk factors, as with other forms of cardiovascular disease.

J-TRACE, which is a registry of stable outpatients considered at high risk of CVD events in real-world medical practice, includes patients with a history of CAD or CVD or patients with AF, recruited nationwide from Japan. Using this large database, Goto et al show a low annual CVD event rate in Japanese patients with a history of CVD or myocardial infarction, or with AF. The incidence of CVD was the highest among patients with a history of CVD. Large-scale evidence in relation to CVD event recurrence for Japanese is certainly needed. The short follow-up may have resulted in a misleadingly low annual CVD event rate; however, as in the previous study, improved blood pressure control and more reliable use of antiplatelet or anticoagulant therapies may lead to high rates of secondary prevention. The AF burden in Japan is potentially avoidable through the optimization of risk factors, especially blood pressure control. In J-TRACE, it may be a little difficult to identify AF as a cause of CVD. In such difficult cases, analysis of local filtered P wave duration is required in order to assess the inhomogeneity of electrical atrial activity in patients with paroxysmal AF. The changes in filtered P wave duration are generally considered to be a consequence of changes in atrial conduction, as assessed by invasive electrophysiologic study.

In any case, to prevent a recurrence of thrombo-embolism it is essential to control conventional risk factors, to use adequate anticoagulant therapy, and to treat with antiarrhythmic drugs to maintain sinus rhythm.

References