The American Heart Association (AHA) is known and respected worldwide as an organization that is a credible forum and source of scientific information for the prevention and treatment of patients with cardiovascular disease and stroke. Although the focus of the AHA has historically been within the United States, over the past few years, the group has felt a growing concern about the global burden of cardiovascular disease and its responsibilities outside the United States.

In March of this year, a group of AHA volunteers who are experts in various aspects of cardiovascular disease and prevention traveled to China to discuss prevention and treatment and to meet, learn from, and create international relationships with Chinese physicians and officials. The group also presented AHA prevention concepts to practicing physicians in symposia.

The following are notes recorded en route home to the United States about the visit and its implications.

Notes

It is 9 AM and, as I look through the window of our 747, I see Hong Kong begin to fade behind as I return to the United States after my second medical pilgrimage to China in 12 years. As I reflect on the beauty, customs, people, and intrigue of the Orient, I am excited about my visit, the things I have learned, the progress that I have chronicled since my last visit, and the new friends that I made. Interestingly, however, I am also bothered by mixed emotions about the fact that, despite significant advances in many areas, trends exist that will lead to an ever-building epidemic of disease that will affect the huge population of China. Worse is the fact that we in the United States have been dealing with this epidemic for many years and still have not brought it under control.

It seems that as many developing countries acquire more modern and westernized capabilities, the diseases that threatened these countries previously (such as infectious and diarrheal diseases) come under control and are replaced by factors that lead to atherosclerotic vascular diseases, in particular, coronary heart disease and stroke. This seems to be the current trend in China just as it has been in the United States. Further, because we know much about the causes of this disease progress, we should be able to bring it under control in the United States. One Chinese physician with whom I had lunch related that China now has an opportunity to stop this epidemic before it gets worse. I hope he does better than we have done in the United States.

To my eye, progress has occurred in several areas in this country of 1.2 billion people. Western types of influence have created an infusion of capital, creating new business infrastructure and buildings. I was impressed by new 4-lane highways, new subway systems, and an apparent proliferation of motor vehicle transportation. In 1988, when more people used bicycles to commute, there were few cars and few licensed drivers. Currently in Beijing, there seems to be an 8- to 10-fold increase in the number of cars and licensed drivers. However, this growth brings the challenges of more traffic congestion, more pollution and, coincidentally, less opportunity for exercise (they, like many of us, don’t ride their bicycles as often). During our visit to one city, its pollution level was declared by the government as the worst it had ever been.

Communications and communication technology appeared substantially advanced since my last visit. According to our hosts, many homes have access to computers and the Internet at work and at home. We noted cell phones everywhere (at least in the larger cities), and an estimated 80% of homes have at least one television. In 1988, I recollect that this number was ≈10% to 15%.

However, more and more “fast food” facilities exist, people continue to smoke at very high rates (46% on average), they are getting less exercise, and some perceive more stress in their lives. Such trends are an unintended side effect of progress toward a “Western” economy and lifestyle and create serious concerns for China and its people.

On this visit to China, I was accompanied by 5 other nationally and internationally respected AHA volunteers who are experts in epidemiology and preventive medicine. We heard reports from our Chinese colleagues that identified several disturbing trends in the country that, when placed in the context of cardiovascular disease, cause us to take notice.

The incidence of diabetes mellitus in the 1980s was ≈0.05%. Currently, the incidence is reported to be 4.2% and rising. Body mass index is climbing in many sections of the country. Hypertension is severe in many patients and often undertreated; the geographic variation in the prevalence of hypertension seems to correlate with the same geographic variation in the occurrence of stroke, a significant proportion of which is hemorrhagic. The leading cause of death in China in 1998 was reported as “circulatory disorders” (193 of 1000...
deaths), with more deaths due to cerebrovascular disorders (113 of 1000 deaths) than heart disease (80 of 1000 deaths).

Historically, lipid abnormalities were less significant in the Chinese; however, current data show rising levels of cholesterol and LDL values, and these trends are temporally related to a rising incidence of coronary heart disease and stroke. Since 1983, total serum cholesterol levels in rural China have risen from 127 to 148 mg/dL (Jun Ren Zhu, MD, personal communication, March 2000).

Most of us are aware of the same issues in the United States. For many years, the AHA has highlighted the importance of the relationship of risk factors for cardiovascular disease, such as hypertension and hyperlipidemia, smoking, and physical inactivity. Recently, the AHA added diabetes and obesity as risk factors. We know that many controlled clinical trials have attested to the efficacy of moderating these risk factors with medical and lifestyle interventions. We also know that we have failed to apply these life-saving and life-prolonging interventions to our patients in anything but small numbers. We in the United States also have an epidemic of obesity (>110 million Americans are overweight or obese) and rising levels of diabetes.

The message from China is not a new one. We in the United States (and many other developed countries) have not been able to take this message, understand the root causes of this epidemic, and effectively address it. The World Health Organization estimates that cardiovascular disease and stroke will be the leading cause of death and disability worldwide by 2020. With China making “progress” toward the same eventuality, it is easy to see how this prediction can come true. The facilities that we visited were making serious efforts to identify their challenges and, through research programs and government-sponsored projects, to address primary care and preventive cardiovascular medicine. These efforts are to be complimented, but if we all do not heed the message and do more than we have ever done before at all levels in each of our countries, we will not avert this epidemic.

Finally, a tremendous opportunity exists for people from all countries to share information, plans, solutions, and results of interventions. The world is truly a smaller place than it was 25 years ago or even 12 years ago when I last visited China. I believe we in the United States must reach out and walk hand-in-hand with those in other countries to address the global burden of cardiovascular disease and stroke. As my plane touches down in the United States, my travel fatigue wrestles with my anxiety about this problem and I wonder what I can do. Perhaps a good night’s rest will reinvigorate my spirit and, with the help of the rest of the worldwide medical community, we can fashion a battle plan.
Message From China
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