Guest Editorial

West Meets East: Breaking Barriers to Prevention in Asia and America

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Rarely has this Chinese proverb elicited as enthusiastic a response as it did at the Preventive Cardiology Conference and 4th Certification Course in Cardiac Rehabilitation held in Hong Kong, February 17-20, 2001 (Figure 1). The meeting provided a unique opportunity for local and international experts to exchange information and gain insights into barriers to cardiovascular disease (CVD) prevention, and to discuss strategies to keep the growing global epidemic of CVD at bay.

In China, as in America, CVD ranks as the leading cause of death, claiming 2.6 million lives per year, more than double the number of Americans who die of CVD each year.[1] Increasing trends of major CVD risk factors is a significant public health challenge in China. According to a recent survey, 63% of Chinese men smoke and the prevalence of smoking is increasing among adolescents; therefore, rates of CVD are likely to continue to climb without widespread effective prevention programs. There is an increasing incidence of hypertension, which is coupled with low rates of awareness (26.3%), treatment (12.1%) and control (2.8%) of blood pressure. Hypertension contributes substantially to morbidity and mortality due to CVD in China, especially for stroke. Although mean cholesterol concentrations are lower in China compared to most western countries, it is one of the few places where levels are increasing.

Data from a prospective study conducted in 11 Chinese provinces showed that the incidence of CVD increased significantly when low-density lipoprotein (LDL) cholesterol was >2.6 mmol/L and that nearly 60% of events occurred in what is currently described as a "desirable" level of LDL cholesterol.[2] Dr. Liu of the Beijing Institute of Heart, Lung & Blood Vessel Disease suggested that a major barrier to prevention is the need to develop national guidelines for treatment of cholesterol that are based the distribution of risk levels within the Chinese population.

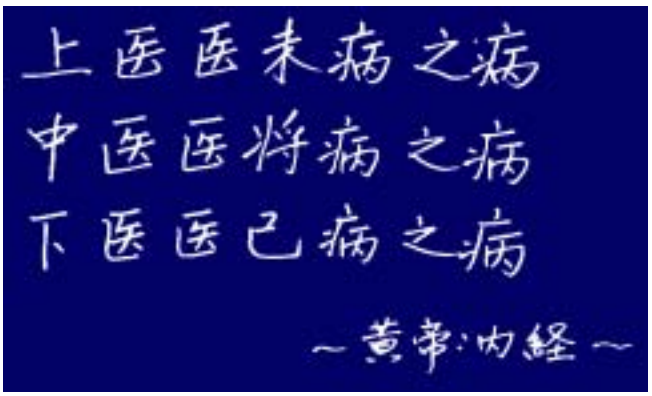

Figure 1. *Translation: "Superior doctors prevent the disease. Mediocre doctors treat the disease before evident. Inferior doctors treat the full blown disease." Huang Dee: Nai-Ching (2600 BC, 1st Chinese Medical Text).*

Comprehensive secondary prevention and cardiac rehabilitation are challenging in many Asian countries, but often for different reasons. Dr. SW Li, Director of the Rehabilitation Unit at Tung Wah Hospital in Hong Kong, described China and Hong Kong as one country with two health systems: "Hong Kong is a capitalistic society with a public health care system, whereas China is a socialistic society with a predominately self-pay system," he stated. Hospitalized patients only have to pay US$8/day for all healthcare services, including coronary bypass grafting and medications. He gave us a tour of his state of the art Cardiac Rehabilitation and

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Prevention Center at the University of Hong Kong, and pointed out that unlike Mainland China, where a lack of facilities and resources are major barriers to prevention, it is a lack of understanding of the effectiveness of cardiac rehabilitation among physicians that contributes to the low rate of utilization (5.7%) of cardiac rehabilitation in Hong Kong.

Not surprisingly, lack of space is a major barrier to the establishment of facilities for rehabilitation in Singapore, a country with 4 million people packed into 660 km^2. Because of the abundance of high rises, use of stairs as a mechanism for exercise training has been suggested as a reasonable alternative to formal cardiac rehabilitation. The 3 major rehabilitation centers in operation in Singapore are hampered by widespread variability in referral patterns and lack of telemetric monitoring.[3] Moreover, limited resources are available for management of lifestyle and psychosocial factors.

Cardiac rehabilitation is relatively recent in Thailand and <5 institutes offer formal programs to the estimated 70 million Thai people.[4] Factors that limit participation are lack of transportation (75%), no escort (13%) and time constraints and/or occupation (13%). In the Philippines, rehabilitation programs have been slow to develop, despite the efforts of Dr. Adolfo Bellisimo, who established a medical society to promote prevention in his country. He suggests that because cardiac rehabilitation is not a distinct subject in medical school, there is a lack of awareness of CVD prevention, and therefore, it is not incorporated into general medical practice. He has stated "Administrators are reluctant to provide space, and the insecurities of medical doctors impede program development."

If the above sounds familiar to United States cardiologists and other health care providers struggling to cue up prevention on the health care priority list, then we have a lot to learn from Asia. Barriers to referral and participation in cardiac rehabilitation in United States are strikingly similar to what was reported by our Asian colleagues.[5] Eastern programs for rehabilitation have been structured after western models, which unfortunately are utilized by <20% of eligible patients according to a recent national survey.[6] Clearly, development of more innovative and individualized programs is necessary to optimize the implementation of secondary prevention and utilization of cardiac rehabilitation. Although rehabilitation has been shown to be nearly as cost effective as aspirin therapy and more cost effective than nearly all cardiovascular interventions, the benefits will not be realized until reimbursement issues are uniformly addressed.[7] Greater awareness of the efficacy of comprehensive secondary prevention can be achieved by integration of a CVD prevention curriculum into medical schools and post graduate training programs.

The "Americanization" of risk factors in Asia, contributed to by the exportation of cigarettes, fast food, and the like, underscores the need to emphasize primary prevention as well as secondary prevention in this developing region of the world. If there is one conclusion regarding barriers to prevention in Asia and America, it is that we are more alike than we are different. Based on the participation in this conference, we also share a common conviction to follow "The Tao" (the way) of prevention.

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