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Editorial

Chinese Cardiology

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Introduction

I make no pretense that I am an expert on Chinese cardiology or the Chinese people, but I have had the opportunity over the last 25 years to visit China as an invited cardiologist, and I think I have a feel of what is happening in that part of the world. Of course the real expert in this area is T. O. Cheng. If you want to read a lot more details than you will read here about the current state of cardiology in China, I recommend that you read his article in the *International Journal of Cardiology*.[1]

In the last 4 years I have been invited by Professor Hu Dayi to participate in an annual meeting held in Beijing, China, entitled, "The Great Wall International Congress of Cardiology" (GW-ICC). The November 2006 meeting hosted approximately 8,000 persons. The GW-ICC is one of the largest and oldest cardiology educational programs in China.

Several of those in attendance were from academic cardiology centers, i.e., in Beijing, Shanghai and other major cities. However, the vast majority of attendees were cardiologists or physicians interested in cardiology throughout the entire country.

American College of Cardiology and the GW-ICC

For the past 3 years, the American College of Cardiology has been invited to send faculty to present information relating to subjects of interest to the Chinese and American cardiologists. This year, ACC President, Steven Nissen led the group, which consisted of Drs. Allan Taylor, Peter Libby, Steven Bailley, Thomas Ryan, Larry Dean, Steven Haffner, and me. All enjoyed having the opportunity to participate in this meeting, and the presentations made by the ACC faculty were well received by the Chinese.

Rationale for the GW-ICC

Professor Hu Dayi, who is Director, Beijing Tongren Hospital, Capital University of Medical Sciences and Dean of the Tonji Medical School in Shanghai, is the person responsible for the evolution of this meeting. He has the vision that it is important for Chinese cardiologists to learn from cardiologists around the world as well as teach those of us who are cardiologists from outside this vast country of 1.3 billion people. He and his colleagues are planning to develop standards for training of Chinese cardiologists and, if I read his thinking correctly, the standards will be similar to those developed in the United States. Those who meet the standards will be eligible to be called CCCP (Chinese College of Cardiovascular Physicians) similar to FACC or FESC.

I suspect that one of the purposes of the GW-ICC is to foster the communication between professional societies such as the American College of Cardiology and the Chinese medical societies. Professor Hu Dayi has made it clear that one of the main goals of the GW-ICC is to provide education materials on relevant cardiovascular problems in the Chinese people, emphasizing both primary and secondary prevention.

Translating Medical Principles into Practice

Professor Hu Dayi and the leadership members of the meeting, one of which is Professor Wang of Peking Union University, feel that case-based learning may be the best way to translate medical principles into practice. I share this approach to teaching, particularly when one is able to use practice guidelines to help make decisions and develop several teaching points based on the cases presented. This was done in Beijing, and the audience of Chinese cardiologists was highly receptive of this method. The general approach to case-based learning emphasizes that the learning experience should start

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with a case presentation to include present illness, past medical history, physical exam, and simple laboratory tests. These data allow development of a differential diagnosis. Once that is established, special tests can be performed to develop a working diagnosis from which a global risk can be estimated and thus a treatment plan initiated. Once that is underway, monitoring responses to that treatment plan are undertaken. When one uses this approach, which seems reasonable and logical, one can then integrate the evidence for the risk at each stage of the process, the global risk assessment, the selection of tests, and the interpretation of those tests, the setting of therapeutic goals for each element of the treatment plan, and the selection of measures for determining response to therapy.

Cardiovascular Problems in China

The Chinese have medical problems somewhat unique to the Chinese population, but there are many patients whose problems are similar to those in Western countries. These include:

1. Obesity (about 18% of the population)—The proportion of overweight or obese children from age 17–18 increased 28 fold between 1985 and 2000.
2. Smoking (about 30% of the population).
3. Diabetes (about 3% of the population)—China probably has the largest diabetic population in the world.
4. Hypertension (about 20% of the population)—The frequency of hypertension in people ages 20 and older in 2000 was 22.6% in men, and 19.7% in women, and by the year 2025 the frequency of hypertension is predicted to be 27.7% in men, and 27.0% in women. Considering the enormity of the Chinese population, this is a huge number of patients with hypertension.
5. Decreased exercise as evidenced by the fall-off in the number of bicycles being used for transportation and the marked increase in the number of automobiles used for transportation,
6. Pollution—probably related to the increasing number of automobiles.

All of these risk factors obviously will increase the cardiometabolic risk for Chinese patients, the end result being an increase in cardiovascular diseases, such as stroke, myocardial infarction, renal failure, peripheral vascular disease and diabetes.

Chinese people are developing diabetes at a younger age and suffering more complications than in past years. China may have the greatest number of people with diabetes in the world by the year 2025. Cardiometabolic risk in China occurs in about one-half of the elderly Chinese, and hypertension is seen in about one-third of Chinese ages 35–74. These factors are related to obesity.

Advances in Cardiovascular Medicine

There is no question that Chinese cardiovascular specialists have advanced tremendously in the last 25 years. There are pockets of excellence in all phases of cardiology, including imaging, interventional coronary work, electrophysiology, heart failure, cardiovascular surgery, etc. It is evident that over the last several years large numbers of Chinese patients have been entered into clinical trials. Because China is such a huge country, the number of patients who are entered from China is also huge and is fairly rapid.

As evidence of their sophisticated level of cardiovascular medicine, I need only to point to the number of articles that are published in English-speaking journals by Chinese investigators. As the editor of *Clinical Cardiology*, I can attest to the increasing number of manuscripts that are coming out of China over the last 5–6 years.

Despite the high level in sophistication of cardiovascular medicine and surgery in certain parts of China, the vast majority of the Chinese do not have access to these facilities.

What the majority of the Chinese population needs are physicians who are essentially general cardiologists whose main goal is to teach the Chinese how to modify the growing number of risk factors that are apparent in the Chinese population. On my earliest visit to China, I was told about the "barefoot doctors" who practiced outside of the major cities in China. I suspect most of these practitioners were using traditional Chinese medicines principally aimed at prevention of subsequent overt disease processes. Maybe what it needs in addition to the barefoot doctors, are barefoot cardiologists (general cardiologists) in addition to subspecialty cardiologists.

The Future of Chinese Cardiovascular Medicine

I had an opportunity to co-chair a Young Investigator Session at the GW-ICC. The purpose of this session was to provide experience for young Chinese trainees and young faculty to present their investigations in English and receive constructive criticism from several professors of cardiology. In my view this is one of the most important aspects of training young cardiologists in China. This will teach them how to present their information at international meetings such as American College of Cardiology, American Heart Association, European Society of Cardiology, which all require scientific presentations in English.

Reference

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