Cardiovascular Disease Epidemic in India- A Continuing Problem

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Cardiovascular disease (CVD) is the most common contributor of morbidity and mortality worldwide. The identification of major risk factors through epidemiological population based studies and effective control measures and health education programs along with targeted treatment of high risk individuals has contributed to the decline in the CVD mortality rates in several industrialized countries. The decline varies from 50 to 60% in countries like Australia, Canada, USA and Japan.1,2

The emergence of CVD epidemic in the south Asian countries during the last three to four decades has been a very concerning cause for the health providers in the recent years. In fact it is a less recognized fact that the developing countries contribute a greater share to the global CVD burden than the industrialized countries. It has been estimated that 5.3 million deaths attributable to CVD occurred in the developing countries in 1990, whereas the corresponding figures from the developing countries ranged between 8 to 9 millions.3 These facts are very alarming and need an in depth analysis of the causes which would help us in forming strategies to reduce the growing incidence.

In this issue of the journal there are 2 studies addressing this issue. Rajeev Gupta et al4 have highlighted the persistent high prevalence of cardiovascular risk factors in the urban middle class in Jaipur, North Western part of India. The authors have compared the risk factors with studies performed in similar locations in years 2002 to 2006. While the risk factors like smoking, obesity, hypertension and diabetes remain unchanged there is a clear trend of increasing levels of non HDL cholesterol and triglycerides over the 8 year period. In another study reported from an entirely different Southern part of the country from Guntur district in Andhra Pradesh Murthy et al5 have also pointed out to the high prevalence of coronary artery disease and a strikingly positive relationship with high levels of LDL cholesterol and triglycerides and impaired glucose tolerance. The sample size in both the studies is rather small although random sampling methodology has been utilized. Another problem in epidemiological studies in our setting is the overall poor response rate from the subjects being evaluated. This is especially true when blood based investigations are required. Nevertheless the authors need to be complimented for the efforts made.

The findings in both the studies point towards a nutritional transition with the global availability of relatively cheap vegetable oils and fats and increasing buying power of the middle class income families in India. This group is a rapidly growing segment of Indian society. This segment constitutes at least one-third of the national population. Our population is showing a change in dietary patterns with the traditional complex carbohydrate-rich diet getting changed with increasing proportion of fats. The globalization of food production and marketing is also contributing to the increasing consumption of energy dense foods poor in dietary fiber and several micronutrients.6 Health education, emphasis on the role of physical activity, diet, behavioral modification and timely screening of risk factors needs to be given top priority by our administrators.

The projected rise in both proportional and absolute CVD mortality rates in the developing countries during the next few decades is alarming. We are experiencing a major surge in life expectancy due to decline in deaths occurring in infancy, childhood and adolescence due to more effective public health responses to perinatal, infectious and nutritional deficiency disorders and improved economic indicators. The developing countries like ours are grappling with the “double burden” of pretransitional and posttransitional disease, and community awareness of the dangers of CVD not being high. The task of CVD control in our setting may therefore be more complex than that in the industrialized countries.

References