Epidemiology of Cardiovascular Disease in Type 2 Diabetes: The Indian Scenario

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Abstract

Noncommunicable diseases, of which coronary artery disease (CAD) and diabetes top the list, have overtaken communicable diseases with respect to overall mortality, even in developing countries like India. High prevalence rates of diabetes and CAD are seen not only in affluent migrant Indians, but also in those living within the subcontinent. Indeed the epidemic of diabetes and CAD is now spreading to the middle- and lower-income groups in India. The risk for CAD is two to four times higher in diabetic subjects, and in Indians, CAD occurs prematurely, i.e., one to two decades earlier than in the West. Thus there is an urgent need for studies on CAD in diabetic and nondiabetic subjects in India.

The Chennai Urban Population Study, a population-based study in Chennai, in South India, showed a prevalence of CAD of 11%, which is 10 times more than what it was in 1970. Clustering of risk factors for CAD such as hyperglycemia, central body obesity, dyslipidemia, and hypertension tends to occur, and interplay of these risk factors could explain the enhanced CAD risk in Indians. Additionally, low-grade inflammation and a possible inherent genetic susceptibility are other contributing factors. Preventive measures such as lifestyle modification with healthy diet, adequate physical activity, and decrease in stress could help prevent the twin epidemics of diabetes and CAD.

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