EDITORIAL

Morbidity and Mortality in Diabetes Mellitus : the Indian Scenario

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Diabetes mellitus constitutes a growing concern to the population of the world, predominantly because of the devastating effects of its chronic complications. So common and so definite are the chances of developing certain complications during the course of this 'lifelong' disease that some of them have been regarded as 'consequences' rather than complications. Major long-term complications of diabetes include nephropathy, retinopathy, neuropathy and coronary artery disease. There is two to six fold-increased risk of thromboembolic strokes in diabetics than in non-diabetic population, and stroke-related mortality and morbidity are increasing in the diabetic population.

A decade long data at Sher-i-Kashmir, Institute of Medical Sciences, Srinagar showed that common causes contributing to death in diabetes were infections (33.83%), chronic renal failure (30.85%), coronary artery disease (16.36%), cerebrovascular disease (13.36%), hypoglycemia (7.81 %), diabetic ketoacidosis (6.69%) and hyperosmolar coma (2.23%) (1). Nephropathy is a major cause of morbidity and mortality in diabetes mellitus. Multiple factors contribute to the initiation and progression of diabetic nephropathy including genetic and racial predisposition, glycemic and other metabolic abnormalities, alterations in systemic and renal haemodynamics. Diabetic nephropathy seems to occur earlier in the diabetic population in Kashmir valley. Persistent untreated hyperglycemia predisposes to its development and presence of retinopathy strongly suggests the presence of concomitant kidney disease (2). Complications related to the nervous system are more consistent and least understood. The common neurological problems encountered in diabetes mellitus include peripheral neuropathy, strokes, parkinsonism, dementia, seizure disorders and myelopathy (3). The risk factors for the development of diabetic neurological problems include increasing age, longer duration of diabetes mellitus and poor glycemic control. Coronary events are more frequent in diabetes mellitus than in general population. This is also true for unrecognized coronary artery disease in asymptomatic diabetic subjects without a history of myocardial ischaemia. We documented a very high prevalence of electrocardiographic abnormalities and coronary artery disease in patients with non-insulin dependent diabetes mellitus (4). Presence of hypertension in non-insulin dependent diabetes mellitus increased the risk of having associated electrocardiographic abnormalities (odds ratio: 3.3). Awareness about diabetes mellitus and its complications in diabetic population coupled with better management have significantly reduced the occurrence of diabetic ketoacidosis. However, it is still encountered quite frequently in this part of the world. We continue to have very high mortality in diabetic ketoacidosis

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(33%) (5). The major recognized precipitating factors were infection(78%) and omission of insulin(14%). The risk factors, which contributed to mortality, were delayed hospitalization, old age, severe acidosis and severe peripheral vascular insufficiency.

A WHO study suggest that for the world as a whole, between the year 1995 and 2025, the adult population will increase by 64%, prevalence of diabetes mellitus in adults will increase by 35%, and the number of people with diabetes mellitus will increase by 122%. In developing countries, the number of people with diabetes mellitus will increase by 170% (6). India has the dubious distinction of having the maximum number of diabetics in the world. An extensive epidemiological study revealed that 1.89% Kashmiri adults, 40 years or older, had known diabetes mellitus. Of 5083 apparently normal subjects who were subjected to glucose tolerance test, 4.25% had diabetes mellitus while 8.09% had impaired glucose tolerance test (7). Such reports support the predictions of the epidemic nature of diabetes mellitus in the world during the first quarter of the 21st century.

Realizing the devastating complications of diabetes mellitus and the health-care consequences of its complications it is mandatory for the health-care systems as well as health-care personnel to prepare for this health disaster well in time. The increasing concentration of diabetes in urban areas of developing countries, which may be largely accounted for by the rapid growth in the size of the major urban conglomerates of developing countries, as well as by the ageing of their populations should also be borne in mind when planning future health care systems.

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