Guest Editorial

Diabetes in the elderly: Need for Focused Care

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The age of 60 or 65, roughly equivalent to retirement ages in most developed countries is said to be the beginning of old age. At the moment, there is no United Nations (UN) standard numerical criterion, but the UN agreed cutoff is 60+ years to refer to the older population. In some cases, persons aged over 65 are referred to as elderly while those above 75 as geriatric population.

Is diabetes different in geriatric patients?

Certain disabilities and morbidities which are the characteristics of elderly people greatly affect their capacity to withstand the stress of diseases, and so also the quality of life. Diabetes mellitus may behave in a little different way in certain aspects which are worthy of discussion here. There is direct correlation between advancing age and the rise in plasma glucose, especially in the post prandial levels. Both non-insulin dependent glucose disposal specially during hyperglycemia as well as glucose dependent insulin disposal are impaired. Majority in the elderly have type2 diabetes mellitus (T2DM) which manifest in two ways: (i) pre-existing diabetes since its onset in young adulthood or middle ages- so called Diabetes of Median age (55.28%), and (ii) Diabetes occurring for the first time in geriatric age (44.72%)- so called Diabetes of the senile age, with few cases of T1 or other rare variety also being seen.

Setting glycemic target in the elderly: the constraints

Life expectancy is largely determined by functional status of an individual and presence of different co-morbidities. The estimated net benefits of treating to intensive glucose control (HbA1c 7%) vs. moderate glucose control (HbA1c 7.9%) is only modest at best, as suggested by a computerized stimulation model. A 5 year life expectancy has been suggested as a threshold for identifying older patients who are unlikely to benefit from intensive glucose control. The American geriatric society strongly recommends individualizing the target setting of diabetes care in the elderly and has included in
their guidelines six geriatric syndromes such as polypharmacy, depression, cognitive impairment, urinary incontinence, injurious falls, and pain which should get priority over endeavors to achieve a tight glycemic goal. In a recent joint position statement, the American Diabetes Association (ADA), American Heart Association and American College of Cardiology, based on the findings of Veterans’Affairs Diabetes Trial (VADT), Action to Control Cardiovascular Risk in Diabetes (ACCORD), and the Action in Diabetes and Vascular Disease: Preterax and Diamicron-Modified Release Controlled Evaluation(ADVANCE) trials, suggested that the potential risk of intensive glycemic control may outweigh its benefits in patients with a very long duration of diabetes, a known history of severe hypoglycemia, advanced atherosclerosis and advanced age/frailty(9).

Safety issues and monitoring of therapy and glycemic control

Hypoglycemia is one of the major limiting factors in glycemic control by pharmacological means. In major interventional studies, intensively treated patients experienced two to threefold higher incidence of hypoglycemia. There is exponential rise in the incidence of hypoglycemia with age, The incidence per person-years vary from 1.23 to 2.78 depending on the type of pharmacological modality used(10). Two factors which compound the problem in the elderly are hypoglycemia unawareness resulting mainly from lack of autonomic warning symptoms, and delayed psychomotor responses to intervene in the correction of hypoglycemia(11). Only alertness on the part of the patient(self monitoring, maintaining regularity in meals, regulating physical activity etc), and the care provider (choosing the right pharmacotherapy,down titrting the dose at the earliest indication, taking the co-morbidities in to considerations etc) can avert such adverse events.

Although insulin is generally believed to be associated more with hypoglycemia compared to oral drug, the findings of an open cross-sectional study undertaken to audit safety of self-management amongst elderly (age > 65 yr) patients with insulin-requiring diabetes mellitus) implied that hypoglycemic attacks were associated with too little food in 42 %, late meals in 17 %, missed meals in 11%, too much exercise in 28% and too much insulin in only 6 % (12). 'It is reassuring that in patients with type 2 diabetes, hypoglycaemia due to insulin is usually not severe.(13). Such evidence and wisdom should be taken in to consideration by the care provider so that insulin therapy in the deserving patient is not delayed inappropriately.

The unique features of pathophysiology, risk of hypoglycemia, risk benefit ratio of intensive management point to the need of a focused, individualized treatment plan for geriatric patients with diabetes. Such aspects should be emphasized in training and continuing medical education programmes for diabetologists.

References: