Glycaemic control and its associated dietary related factors among Tamil patients with type 2 diabetes mellitus

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Background: The diet therapy is an essential component in the management of diabetes mellitus (DM) as well as reduces its complications. Therefore, it is essential to know the dietary pattern of the patients with DM. The present study aimed to determine the dietary related factors associated with good glycaemic control of DM among the Tamils in the Batticaloa district, Sri Lanka.

Methods: An unmatched case control study was conducted among 339 patients with DM in Medical Clinics, Teaching Hospital, Batticaloa. The case patients (n=113) were who had fasting blood sugar less than or equal to 110 mg/dl and the controls (n=226) were who had fasting blood sugar more than 110 mg/dl in at least 3 clinic visits during last 6 months. A pre-tested and validated seven day dietary diary was given to the patients for food which was followed for next 7 days.

Results: It was observed that patients who consumed at least one serving of fruits in a week (OR 2.83, 95% CI=1.03-7.76), consumed bitter gourd (OR 2.23, 95% CI=1.00-4.95), consumed Kurinja (OR 2.49, 95% CI=1.00-6.17), has not consumed potato and manioc (OR 4.75, 95% CI=1.61-14.07), good lunch (OR 4.64, 95% CI=1.93-13.14), normal diet pattern (OR 8.22, 95% CI=3.61-18.74) were found to be the dietary related factors associated with good glycaemic control in the multivariate logistic regression model.

Conclusion: The good glycaemic control could be achieved among patients by practicing the recommended dietary practices.

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Comparative analysis of HCUP and a minority large urban teaching hospital datasets

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In this study, we assessed the differences in outcomes between a Minority Large Urban Teaching (MLUT) hospital and Healthcare Cost and Utilization Project, National Inpatient Stay (HCUP-NIS) datasets among diabetic patients discharged from non-federal hospital in 2012, in the United States. Sample of 1,437,975 and 2,185 subjects diagnosed with type 2 diabetes mellitus were extracted from national and MLUT datasets respectively using the International Classification Data, ICD 9 codes 25000 based on hospital location, size, teaching and ownership status. The result of the study showed that gender distribution was comparable according to the hospital categories with more females (7%) admitted than their male counterparts. The MLUT data had 42.2% males and 57.8% females compared to the national (49.1% male and 50.9% females). For ethnicity, MLUT had 2.2% white and 97.8% black compared to the national (55.6% white, 21.4 % black, 9.0% Hispanic and 14.0% others). For age distribution, national hospitals had more age groups (40-59 years) and (80 years or older) admitted while MLUT hospitals admitted more diabetics of 40-59 years age group. A significant difference (~23%) in admission to national hospitals was noted for patients with income ($39,000-47,999) while patients with income range ($48,000-$62,000) were admitted more (~26%) in MLUT. Patient outcomes were comparable; however, a difference (5%) was noted for hospital stay and hospital charges (13.3%) of patients with hospital charges of less than $20,000 than those admitted in national hospitals with same charges. The overall outcomes showed a significant difference between the hospital categories for length of stay and hospital charges but not for mortality rates. Hence, the MLUT patients stayed more in the hospital with more charges but no significant difference was observed in mortality rates between the hospital categories. The authors call for the study to be replicated with more samples from minority large urban teaching hospitals and to incorporate higher statistical analytics to ascertain the impact of the variables on the outcomes for a more validated result.

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