

Nutritional profile of Diabetes Asian Indians with Low Body Mass Index: What are the unmet needs?

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Statement of the problem: There is paucity of data on nutritional intake in low BMI (BMI) Asian Indians with Diabetes.

Aim: To study the difference in nutrient pattern in lean Type 1 Diabetes Mellitus (T1DM) and Fibro-calcific Pancreatic Diabetes (FCPD) patients.

Methodology: This cross-sectional study consisted of T1DM (n = 40) and FCPD patients (n = 20) who were gender and BMI matched. Nutritional data was collected using 24 hour recall method and food diary. Fasting blood samples were analyzed for lipid profile, serum creatinine, glycosylated hemoglobin, albumin, calcium and vitamin D. Stool samples were analyzed for pancreatic elastase.

Percentage analysis, Independent sample t test and Pearson Coefficient Correlation were used to analyze the data. P value < 0.05 was considered as statistically significant.

Findings: The FCPD patients had a significantly lower vitamin D status compared to the T1DM group (p=0.035) however, hemoglobin, triglycerides, low density lipoproteins, creatinine, albumin and calcium were similar between the groups. Further, FCPD patients had a significant higher intake of fat (p=0.039), fibre (p=0.000), calcium (p=0.047), phosphorous (p=0.035), and niacin (p=0.001) and calories from fat (p=0.047). The T1DM group had a significantly higher intake of thiamine (p=0.047) and carbohydrates (p=0.014).

Conclusion: T1DM and FCPD groups have similar dietary pattern with deficit in fibre, calories, macronutrients and micronutrients. Malabsorption and poor glycaemic control in FCPD patients can be attributed to a higher dietary fat intake. A balanced diet can ensure better glycemic control.

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