Association between Socioeconomic Status and Glycemic control in Type 1 Diabetes Mellitus

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Background:
• Socioeconomic status (SES) is inversely associated with many chronic diseases, with disadvantaged individuals faring worse than the others.
• In Diabetes Mellitus, however, studies evaluating the relationship between SES and the glycaemic control have shown variable results.

Objective and hypotheses:
• To understand the effect of SES on the long term glycemic control in children with Type 1 Diabetes Mellitus (T1DM) at a tertiary centre in India.

Methods:
• In this retrospective study, clinical data was collected from 78 children with T1DMand their SES calculating using widely accepted modified Kuppuswamy scale (2012).

Results:
• The mean age at diagnosis of T1DM was 7.09 (±3.7) years.
• The mean HbA1c concentration on admission & subsequent follow up were (12.12 ± 2.69%) and (9.09 ± 2.05%) respectively.
• Majority (88.31%) of the children were on mixed split regimen and only 9 patients (11.69%) were on basal bolus regimen.
• The mean HbA1c in children using mixed split regimen was 9.10 (±2.12) %, and it was 9.58 (±1.84) % for those on basal bolus \[P=0.111\].
• As per modified Kuppuswamy scale, the number of children in class 1, 2, 3 and 4 (class 1 being the upper SES) were 6(10.1%), 19 (32.2%), 17(28.81%) & 17(28.81%) respectively.
• Mean HbA1c for SES class 1, 2,3&4 were 8.15, 8.84, 9.66, 9.54 respectively (using Independent Samples “t” test, no significant difference in HbA1c was noted between the upper (class 1 & 2) &lower (class 3 & 4) socio-economic groups \[P=0.64\].
• There was no significant correlation between SES and HbA1c on follow up by using Pearson’s test of Linear correlation \(P=0.10\).

Conclusion:
• In our study, we did not find any evidence to suggest that the glycaemic control in T1DM is influenced by SES in Indian population.
• Further studies are needed to understand the other factors that impact on the long term glycaemic control.

Conflict Of Interest: None Stated.

Reference: