Correlation of Depression and Anxiety with Glycemic Control in Children with Type I Diabetes Mellitus

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Abstract : Depression and anxiety are of significant concern in youth with type 1 diabetes mellitus (T1DM) and these are correlated with glycemic control in multiple ways. The extent of depression and anxiety in children with T1DM remains poorly studied in India. The index study aimed to find the prevalence of depression and anxiety and their correlation with HbA1c (glycated hemoglobin) levels in children with T1DM. Material and methods: This study was a cross-sectional study carried out on a purposive sample of 45 children with T1DM. Depressive symptoms were assessed using Children's Depression Rating Scale-Revised (CDRS-R) and anxiety symptoms were assessed using Spence Children's Anxiety Scale (SCAS). Glycated hemoglobin (HbA1c) levels of all the participants were recorded. Results: 43 out of 45 children were analyzed as HbA1c status for two was not known. 48.8% were females. Mean age was 12.95+2.04. The average duration of diabetes was 3.63+1.82. Mean CDRS-R score was 41.6+12.25 and mean SCAS score was 33.07+12.29. Mean recording of HbA1c level was 7.90+1.51. 27 (62.8%) out of 43 participants had abnormal scores on CDRS-R and 24 (55.8%) out of 43 had abnormal scores on SCAS. The correlation coefficient between HbA1c levels and the CDRS-R score came out to be 0.57 and between HbA1c and SCAS, it was 0.53. Both correlations were significant with the p-value of < 0.02. Conclusion: Children with T1DM have high co-morbidity of depression and anxiety which is significantly correlated with the HbA1c levels. Thus, it becomes important to screen the patients for depression and anxiety for better outcomes.
Keywords : anxiety, depression, HbA1c, T1DM
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