

Frequency and Risk Factors of Depression in Type 1 Diabetes in a Developing Country.

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OBJECTIVES

Our aim was to investigate the frequency of depressive symptoms in children and adolescents with type 1 diabetes and their association with demographic, diabetes-specific, and family-functioning risk factors.

METHODS

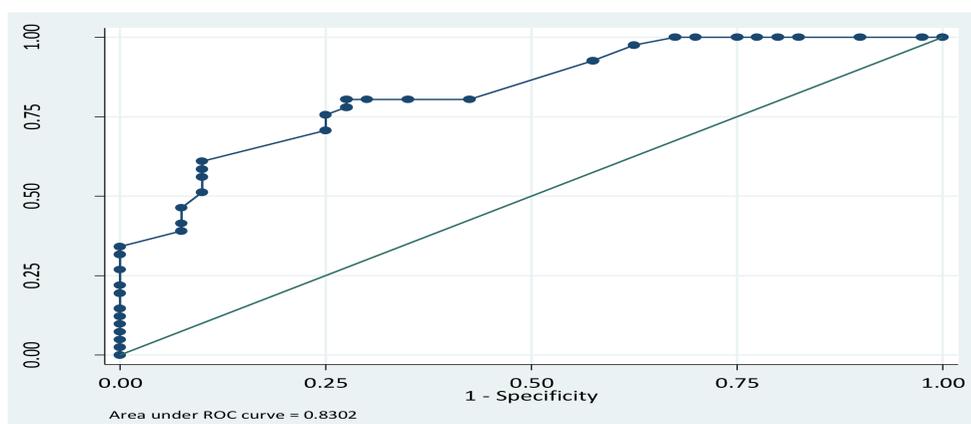
The study was conducted using Epidemiologic Studies Depression Scale. 86 (42 males and 44 females) patients with type 1 diabetes from Diabetes Clinic in Alexandria University Children's Hospital, Egypt, have completed the questionnaire during 1 November-31 December 2015. Their mean age was 11.14 ± 3.02 (Range 5.8 - 16.2 year). Logistic regression models were used to detect the predictors of depression.

RESULTS

In the current study 44 children (51.16%) had score ≥ 15 indicating depressive state. Children who had depression were found to have significant longer duration of diabetes (5.7 ± 2.5 year), higher mean total daily insulin dose (1.3 ± 0.44 unit/kg), HbA1c level (9.9 ± 1.7) and were less frequently treated with basal bolus insulin regimen (29.6%); $P \leq 0.001$. Univariate logistic regression model showed that older age (OR, 1.2; 95% CI, 1.2 – 1.39), achieving puberty (OR, 0.3; 95% CI, 0.1 – 0.7), lower socio-economic status (OR, 0.19; 95% CI, 0.04 – 0.95), having less educated mother (OR, 0.28; 95% CI, 0.08 – 0.96), not on basal bolus insulin regimen (OR, 5.3; 95% CI, 2.1– 13.4), receiving ≤ 3 daily injections (OR, 1.2; 95% CI, 0.27– 0.55), DKA admission (one (OR, 3.6; 95% CI, 1.19 – 11.06), two (OR, 5.1; 95% CI, 1.2 – 21.4), three times (OR, 11.3; 95% CI, 1.8 – 122.5) were independent predictors for depression. Multivariate logistic regression model adjusted for significant predictors in the univariate model showed that HgbA1c is the only significant predictor for depression with C statistics of 0.83.

Multivariate logistic regression model including the significant baseline predictors of depression model:

Epidemiological StudiesC	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
HbA1c	1.197924	.299006	4.01	0.000	.6118831 1.783965
_cons	-10.49008	2.612733	-4.01	0.000	-15.61095 -5.369222



CONCLUSIONS

Children and adolescents with type 1 diabetes have higher frequency of depressive symptoms in a developing country. Poor glycemic control is the most significant predictor for depression in these patients.

References

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