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LINEAR GROWTH AND FINAL HEIGHT IN PEOPLE WITH TYPE 1 DIABETES MELLITUS: A STUDY FROM KARACHI-PAKISTAN

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ABSTRACT

OBJECTIVE: To determine the linear growth in children/adolescents with type 1 diabetes mellitus (T1DM) at a tertiary care hospital.

METHODS: This observational study was conducted in Baqai Institute of Diabetology and Endocrinology, Baqai Medical University, Karachi, Pakistan from January-2001 to July-2021. All children/adolescents diagnosed with T1DM of either gender, between 8-18 years age visiting the outpatient department were included after informed consent. Predesigned questionnaire was developed for data records. Height of study participants and parents was checked in centimeters (cm) by stadiometer and mid-parental height was calculated. Weight was checked in kilograms (kg) on calibrated digital weight machine. Centers for Disease Control and Prevention growth chart was plotted and growth velocity was checked every six months to check linear growth. Final height was compared with targeted height of respective participants.

RESULTS: Total of 66 people participated (24 male, 42 female), with mean age at diagnosis was 11.17±4.77 years and duration of diabetes at first visit was 1.97±3.3 years. Mean age at menarche was noted 13.56±1.41 years. The overall height standard deviation score (SDS) at first visit was -0.62±2.58 and at last visit was -1.34±0.94, whereas the overall weight SDS at first visit and at last visit was -0.62±2.58 and 1.34±0.94 respectively. Furthermore, overall mid-parental height was 160.95±10.28 cm and 50% males and 85.7% females achieved genetic target height (p-value=0.002).

CONCLUSION: Majority of males did not achieve genetic target height, however females achieved genetic target height along with late age of menarche as compared to general population.

KEYWORDS: Diabetes Mellitus, Type 1 (MeSH); Body Height (MeSH); Linear growth (Non-MeSH); Mid-parental height (Non-MeSH), Final height (Non-MeSH).

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CONFLICT OF INTEREST

Authors declared no conflict of interest

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