



How Our Families Fared with Home Management of Type 1 Diabetes During the COVID-19 Pandemic 2020 Lockdown

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To the Editor: Adverse impact on glycemic control [1] was expected in patients with diabetes, with the burden of COVID-associated lockdown on health care. Studies on type 1 diabetes (T1DM) have reported improved, as well as worsened glycemic control [2, 3]. We evaluated the effect of the 2020 lockdown on glycemic control and lifestyle of children with T1DM.

Parents of patients ≤ 25 y with T1DM ($n = 163$), from eastern UP (barring 4 big cities having better health care facilities), were contacted [$n = 104$ (successfully contacted), mean \pm SD age 13.4 ± 4.5 y]. They were questioned telephonically 2 mo after the complete national lockdown regarding their access to health care, insulin, food, and lifestyle changes during the lockdown.

A change in the brand of, and the use of physiologically wrong, insulin was noted in 54% and 4.8% patients, respectively. HbA1c improved significantly after the lockdown versus the 1-y pre-COVID average (7.59 ± 1.77 vs. $8.61 \pm 1.80\%$, $p < 0.05$, $n = 35$). Parents of 27 of the 28 patients whose HbA1c improved, attributed it to decreased opportunity to consume energy-dense food during that period. Of them, 3 also attributed it to better supervision by (both) parents due to their increased presence at home. Median (IQR) home blood glucose monitoring (HBGM) frequency was significantly low during the lockdown [14 (15) vs. 21.5 (3.7) pre-lockdown, $p < 0.001$]. Rural residence and lower level of mother's education were associated with lower HBGM. Decreased exercise occurred in 40% and excess weight gain in 51.5%. Three patients suffered severe hypoglycemia episodes requiring intravenous glucose, managed

locally. None had injection glucagon at home within expiry date.

We conclude that despite accessibility problems and adverse conditions, improved parental supervision and meal quality had favorable effects on diabetes management, reflected by the improvement in HbA1c in a small cohort of children. These insights will be relevant for children with other chronic diseases also.

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Declarations

Ethical Approval The study was approved by the institutional ethics committee of SGPGIMS, Ethics Committee approval number: 2020-138-IP-EXP-20.

Conflict of Interest None.

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