A 14 year old girl with background of cerebral palsy (functionally grade 4), global developmental delay, panhypopituitarism(diagnosed at 12 yrs of age).

Medications: growth hormone(GH)(1.4 mg/day), thyroxine and hydrocortisone

Height measurement was always an issue due to significant scoliosis and contractures.

Presented with chest infection, found to be persistently hyperglycemic(HbA1c 9%), autoantibody screen was negative

Treated with insulin. (needed a large dose-2U/kg/day)

Around the same time, dose of GH reduced to adult dose(0.2 mg/day) as her Insulin like growth factor-1(IGF-1) levels were high and she had completed her growth.

Her insulin requirement drastically reduced over a period of a month.

She continued to take a small dose of levamir (5 units), but had to wean it off due to hypoglycemic episodes, stopped after a year.

Her blood sugars and HbA1c remain normal, now off insulin for nearly 2 years

It is of note that her IGF-1 levels were high for a period of at least 6 months before she was diagnosed with diabetes.

Improvement in her diabetes coincided with reduction of GH dose. And gradual normalisation of HBA1c correlated with normal IGF-1 levels.

A significantly disabled teenager developed iatrogenic diabetes on GH treatment, needed insulin, which, however reversed on reducing the GH to adult maintenance dose.

**LEARNING POINTS**

- GH replacement therapy can increase insulin resistance(1). Hence the need to monitor HbA1C levels during GH therapy.

- Fasting insulin levels are needed to document insulin resistance in any case of atypical diabetes.

- Height can be very difficult to measure in a child with significant disability, hence completion of growth difficult to assess.