

## Does all Juvenile and Young Diabetics Require Insulin?

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### ABSTRACT

Diabetes mellitus is the heterogeneous group of metabolic disorders which is characterized by the hyperglycemia. All such conditions are supported by the combination of several insulin secretory defects and impaired insulin action. American Diabetes Association classify diabetes in to four different type including type 1 diabetes mellitus (T1DM) (presence of absolute deficiency of insulin and exogenous insulin dependency are the key identifiers), type 2 diabetes mellitus (T2DM) (various degree of insulin resistance preceding progressive insulin secretory defects), gestational diabetes mellitus (GDM) (diabetes during pregnancy) and diabetes due to other causes other than the above.

**Keywords:** Pregnancy; Mellitus; Insulin

Last category of diabetes is poorly defined and due to that the right diagnosis of diabetes type becomes difficult. T2DM accounts for majority of the diabetes cases (over 90%) in primary care whereas T1DM accounts between 5%-10% of all cases. Moreover health care professionals also encounter individuals with impaired glucose metabolism who are lean, lack markers of insulin resistance or have the typical T2DM abnormal lipid profile, or they are non-hypertensive or have other typical cardio vascular risk factors and who are not completely insulin dependent. Such patients exhibit a diagnostic challenge.

Some patients are difficult to be classified as having either T1DM or T2DM because of presence of overlapping features of both. It became very important to accurately classify these forms as accurate diagnosis will lead to significance of predicting disease progression, deciding the prognosis and planning the right treatment to prevent the long term complications. Here we present five such cases that look similar in terms of glycemic parameters but were diagnosed with different types of diabetes which are classified under fourth type of diabetes other than typical T1DM, T2DM and GDM.

### DISCUSSION AND CONCLUSION

As a routine clinical practice physician usually consider diagnosis of type 1 diabetes in a very young patient with high blood glucose levels and insulin is initiated. But as we presented these five cases, a physician should also consider the diagnosis of other types of diabetes which are routinely not common. As many patients due to changes in their life style are diagnosed with type 2 diabetes at a very young age. Also in Indian scenario fibrocalculous pancreatic, early onset of type 2 diabetes mellitus, MODY and LADA are routinely observed. In Today's World, the scenario is changing and physician should be well aware of the fourth type of diabetes which is though less common but can lead to false diagnosis of type 1 diabetes in young patients.

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