CHALLENGES IN USING INSULIN PUMPS IN PEDIATRICS: A SELF REPORT BY FAMILIES
Soniely Lugo-Ruiz, Michelle Rivera, Nunilo Rubio and Michael Yafi
The University of Texas Health Science Center at Houston, USA

ABSTRACT

• Type 1 Diabetes Mellitus (T1DM) is a chronic autoimmune condition that requires multiple daily insulin administrations. Insulin pump therapy provides less injections and reduced episodes of hypoglycemia. This technology contributes to more flexibility in T1DM management, but requires frequent re-evaluations and adjustments for optimal management.

The discontinuation rate of insulin pump therapy is higher in adolescents compared to other groups. Previous studies have shown that a small number of pediatric patients discontinue pump therapy, but risk factors for discontinuation are unclear. The most common challenges reported in insulin pump continuation are disliking the pump, problems wearing it, and glycemic control problems that leads to burnout.

RESULTS

Sixty-three percent of the children using insulin pump therapy were between the age of 13 and 18 years.

Fifty-six percent of the total patients had the insulin pump for more than 5 years.

The reported problems in the first year while using pumps were: Pump failure (60%), diabetic ketoacidosis (23%), and severe hypoglycemia (13%).

CONCLUSIONS

Technological problems remain the most common challenge for families. Insulin pump failure can easily lead to diabetic ketoacidosis (DKA). Other problems may include device misuse, site infections and adherence to skin, and should always be explored. Further studies should examine concerns related to body image, interference with daily activities, and other psycho-social factors.

METHODS

One hundred families who have children with T1DM on insulin pumps were a part of a self-reported survey. The survey was delivered during regular outpatient follow up visits. The project was approved by the Institutional Review Board in our University.

REFERENCES


