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INTRODUCTION & OBJECTIVES :

The growing pandemic of type 1 diabetes is considered as an enormous multifactorial public health challenge in the world. Many targeted interventions should be provided to improve type 1 diabetes management especially during childhood and *adolescence*.

The purpose of this study is to elucidate the epidemiological, clinical and management profile of type 1 diabetes in Moroccan children and adolescents followed up in the endocrinology department of Oujda's Mohammed VI university hospital.

MATERIAL & METHODS :

This is a retrospective data analysis of children and adolescents with type 1 diabetes followed up in the endocrinology department of Oujda's Mohammed VI university hospital.

RESULTS :

83 children and adolescents with type 1 diabetes were involved in the study. The number of patients diagnosed with type 1 diabetes was higher during the cooler months of the year compared to the warmer ones, and a positive family history in first-degree relatives was reported in 23% of patients.

The overall mean age at diagnosis was 12,8 years ; with an average of initial hemoglobin A1c value of 12,3 %.

The classic b-cell autoimmune markers were surveyed in 57% of cases ; and 67% were found positive for antiglutamic acid decarboxylase antibodies (GADA).

All the included patients were screened for co-occurring autoimmune disorders ; and hypothyroidism was detected in 13% and coeliac disease in 9,1% of cases.

Chronic degenerative complications were noticed in 15% of patients with retinopathy in 10,4% and diabetic kidney disease in 7,2%.

Basal Bolus insulin regimen was adopted in 95,7% and 48,3% of patients were enrolled in flexible insulin therapy training programmes. Insulin pumps were used in 14% of cases.

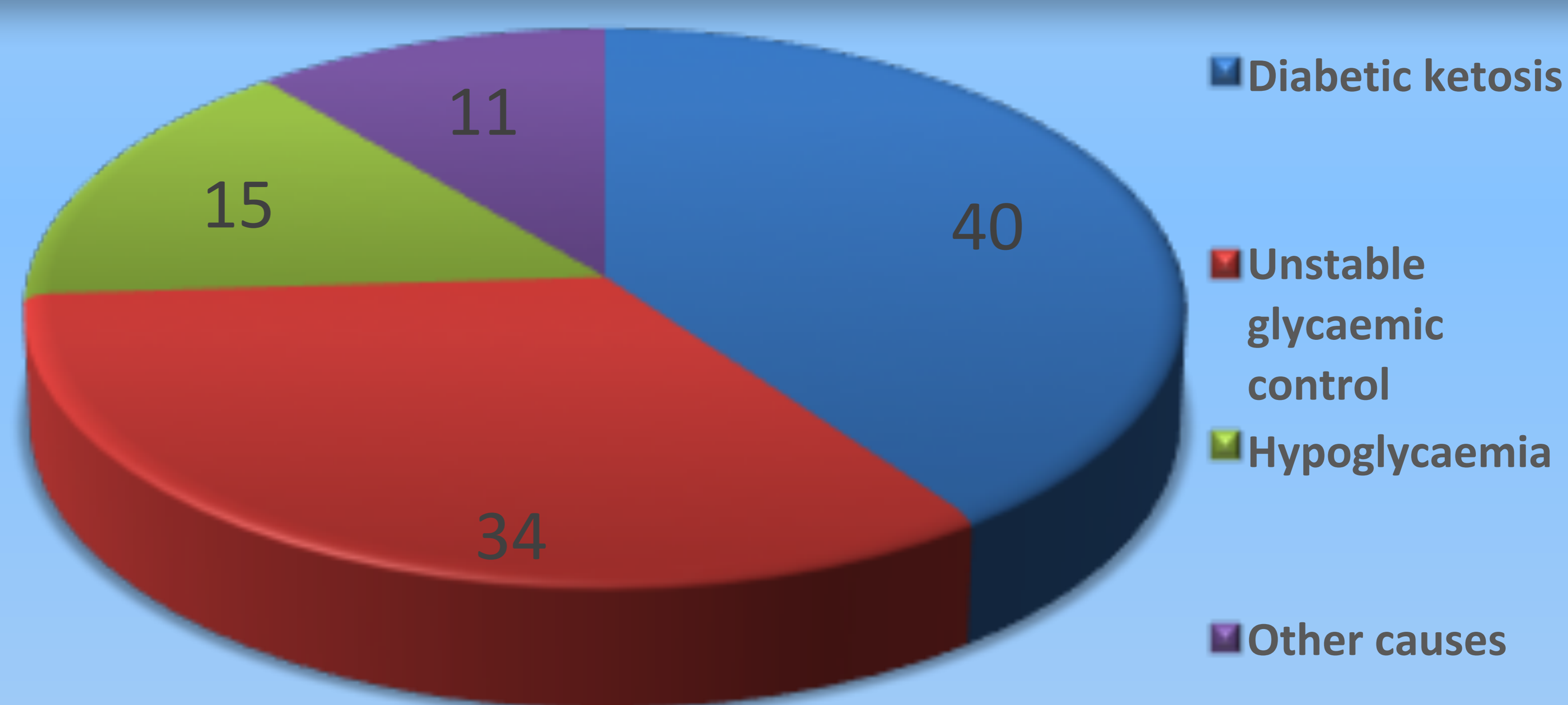


Figure 1: Causes of admission to our department in children and young people with Type 1 diabetes.

DISCUSSION & CONCLUSION :

Overall, approximately 96 000 children under 15 years are estimated to develop type 1 diabetes annually worldwide (1). Recent evidence has elucidated that presymptomatic type 1 diabetes progresses through a continuum of three distinct identifiable stages prior to the onset of symptoms. The human leukocyte antigen (HLA) genotype confers approximately half of the genetic risk for type 1 diabetes, acting in parallel with modern environment (2).

Vascular complications still remain a key contributor to mortality in young people with an onset of diabetes during childhood.

Glycemic targets should be individually determined with the goal of achieving a value as close to normal as possible while avoiding hypoglycemia and optimizing quality of life (3).

Treatment of Type 1 diabetes mellitus in children and adolescents is especially difficult. But, recent technological advances either in monitoring or as therapeutic pathways have improved metabolic control and decreased hypoglycemia (3).

Endocrinology department of Oujda's Mohammed VI university hospital offers a personalized healthcare, for each child or adolescent with type 1 diabetes with guarantying a good quality of life.

References:

- [1] IDF Diabetes Atlas. 8th ed. Brussels, Belgium: International Diabetes Federation; 2017
- [2] Rewers M, Ludvigsson J. Environmental risk factors for type 1 diabetes. *Lancet*. 2016;387(10035):2340-2348.
- [3] ISPAD Clinical Practice Consensus Guidelines 2018: Glycemic control targets and glucose monitoring for children, adolescents, and young adults with diabetes.