

## BACKGROUND

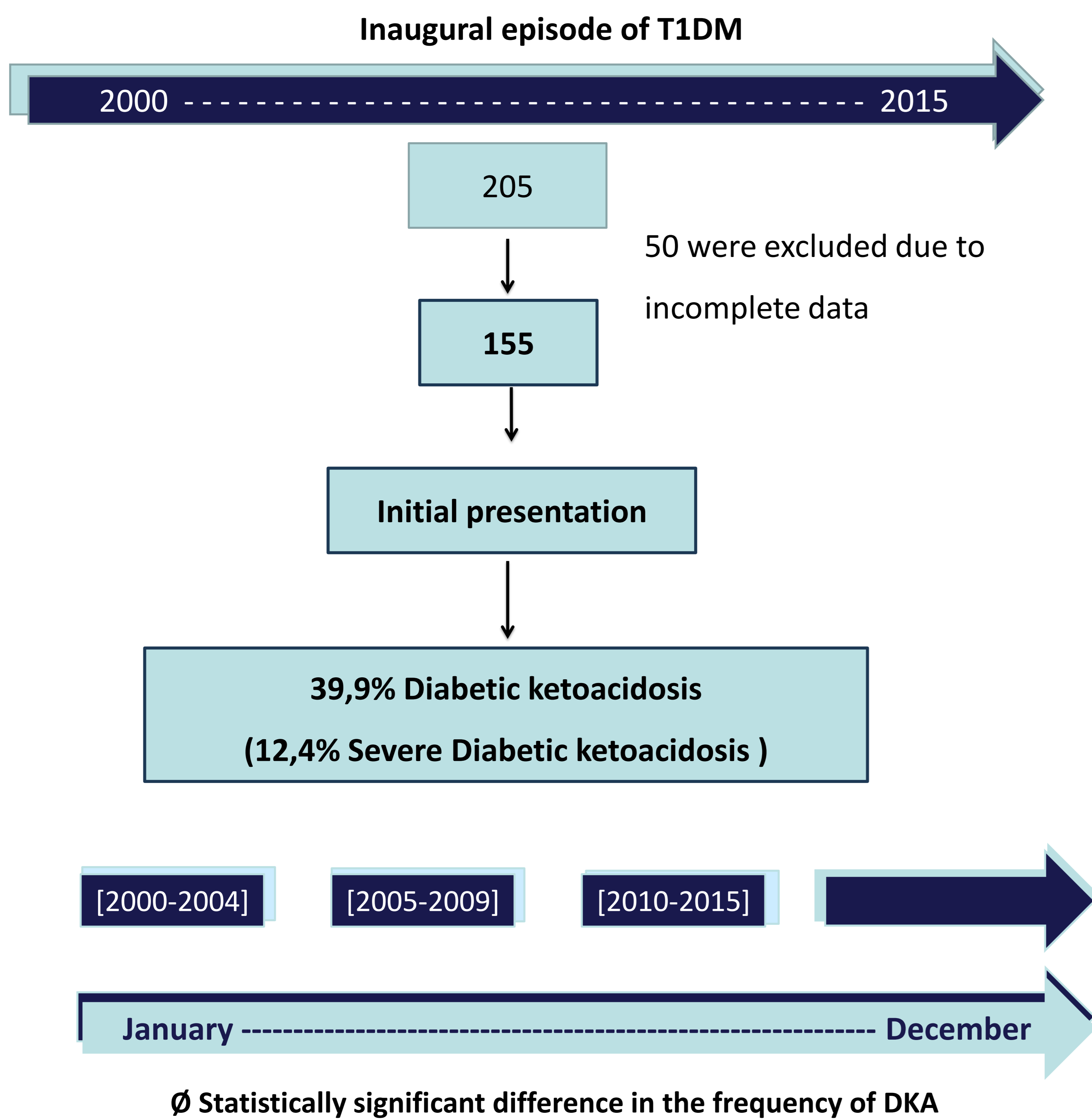
Diabetic ketoacidosis (DKA) is the most serious acute complication of type 1 Diabetes mellitus (T1DM). It is important to know the factors associated with the development of DKA and elaborate preventive strategies to reduce their prevalence.

## OBJECTIVE AND HYPOTHESES / METHOD

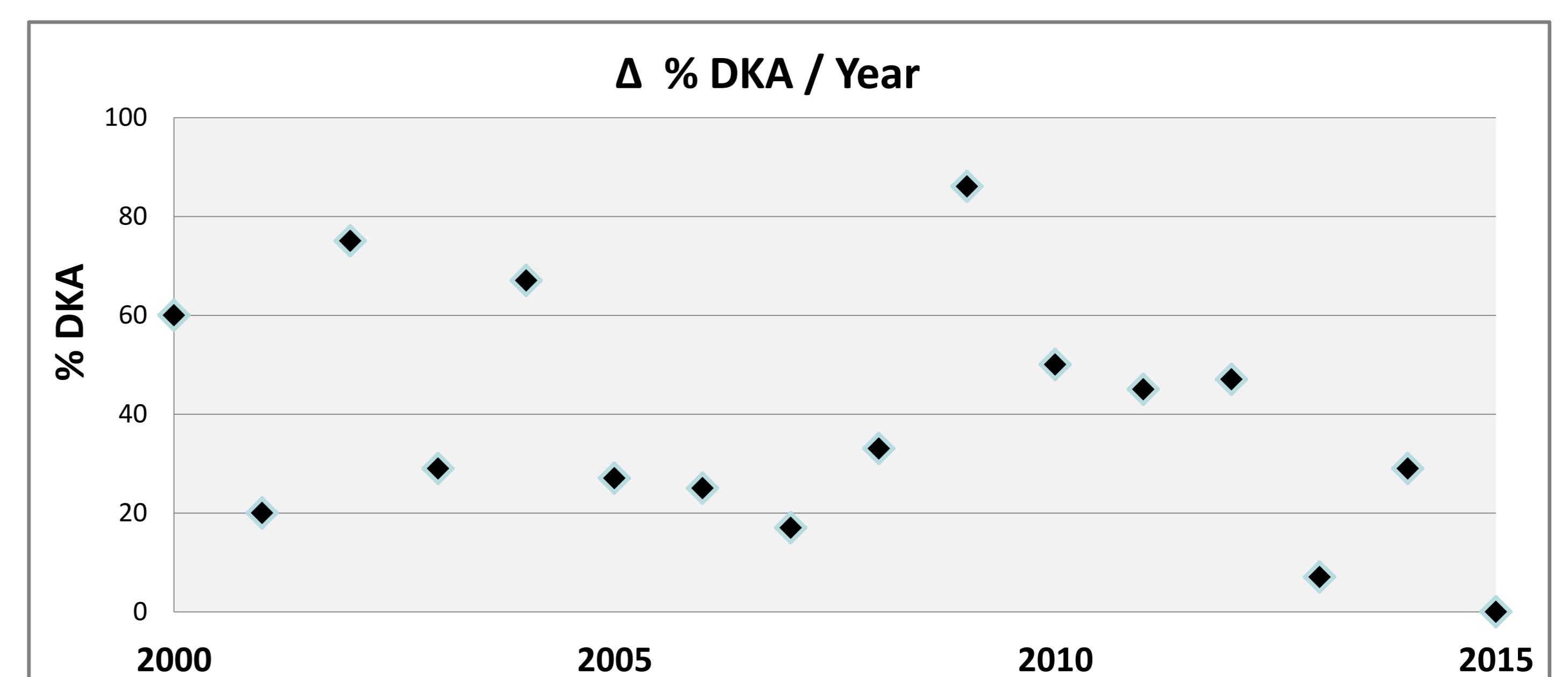
**Objective and hypotheses:** To identify diabetic ketoacidosis predictive risk factors in the initial presentation of T1DM in children and adolescents.

**Method:** We conducted a retrospective study, by analyzing the medical records of children/adolescents diagnosed with T1DM between 2000 and 2015, followed in our hospital. We have made a descriptive analysis of demographic and clinical variables, the occurrence of DKA in the initial presentation and a comparative analysis between the groups with and without DKA. Statistical analysis was performed with SPSS.

## RESULTS



SAMPLE CHARACTERIZATION	
n	155
Gender distribution (M/F)	58,1%/41,9%
Age distribution (Years)	7,8 ± 4,1 [min-max: 1-16]
Monthly distribution	32,9% October - December
Annual distribution (cases/year)	Média 9,6 (min-max: 2-23)



VARIABLES STUDIED - INITIAL PRESENTATION OF T1DM										
Gender / Age at diagnosis	Parents' education level	Family history of T1DM	Phratry / Sibling position	Personal history of auto-immunity	Duration of disease progression	Symptoms	Date / Presentation	Antibodies requests / Positive Antibodies	C-peptide value	Initial HbA1c

	DKA	∅ DKA	p-value	Odds Ratio
Family history of T1DM	17,4%	42,5%	p < 0,05	0,285
Duration of symptoms ≥ 15 days	46,0%	28,3%	p < 0,05	2,2
C-peptide value < 1,0 ng/mL	40,6%	5,9%	p < 0,05	10,9
Initial HbA1c ≥ 10%	52,2%	8,0%	p < 0,001	12,5

Most common symptoms

Polyuria (96,5%)

Polydipsia (90,3%)

Weight loss (61,1%)

## CONCLUSÃO / DISCUSSÃO

The DKA as the initial presentation of T1DM in pediatric population was high, above the international average that is around 30%. Were identified as risk factors: symptoms that persist longer than 15 days, initial HbA1c ≥ 10% and C-peptide < 1.0 ng/mL and as a protective factor the family history of T1DM. It is necessary to strengthen the public education in order to reduce the time between the onset of symptoms and the diagnosis of T1DM.