DIABETIC KETOACIDOSIS (DKA) in children with newly diagnosed Type 1 Diabetes (T1D) has been associated in previous studies with several factors, such as age or season of diagnosis. The aim of the present study was to assess the impact of age, gender, birth order and seasonality in DKA occurrence in newly diagnosed T1D pediatric patients.

**RESULTS**

- Hundred and fifty nine (159) newly diagnosed T1D children in the years 2010-2015 were recorded and 89 (55.9%) presented with DKA (severe DKA in 23.59%, moderate in 43.82%, and mild in 32.58%).
- In univariate logistic regression analysis neither age [Exp(B):0.930, 95% CI:0.859 – 1.006, p=0.072] nor the season of birth exhibited any significant effect [Exp(B):1.405, 95% CI:0.748 – 2.639, p=0.290] on DKA occurrence, while male sex was negatively associated with DKA at T1D diagnosis [Exp(B):0.482, 95% CI:0.254 – 0.915, p=0.026]. Furthermore, diagnosis during the cold months (fall-winter) was borderline negatively associated [Exp(B):0.536, 95% CI:0.284 – 1.014, p=0.055] with DKA, while the order of birth (1st born children vs. other) had no impact on DKA occurrence [Exp(B):1.122, 95% CI: 0.598 – 2.106, (p=0.720)].
- In multivariate logistic regression analysis only male gender [Exp(B):0.470, 95% CI:0.246 – 0.901, p=0.023] and the diagnosis during fall-winter [Exp(B):0.521, 95% CI:0.272 – 0.997 p=0.049] were statistically negatively associated with DKA occurrence at T1D diagnosis.

**CONCLUSIONS**

Male patients presented less frequently DKA at T1D initiation. Furthermore, diagnosis during the cold months is less often associated with DKA at T1D onset. All other factors investigated (order of birth, season of birth etc) had no impact on the severity of T1D at the initial presentation.

**References**