Vitamin D status and type 1 diabetes in children: evaluation according to latitude and skin color

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AIM: We aim to investigate vitamin D (25OHD) levels in children with or without type 1 diabetes (T1D) according to latitude and skin color.

METHODS: We compared 25OHD levels in children with T1D living in Piedmont, of Caucasian or Moroccan origin, with healthy control subjects matched for age and ethnicity. Data of resident children in Morocco, with and without T1D, were used for comparison.

RESULTS: Caucasian (21.4±1.5 vs. 24.0±0.5 ng/mL, P<0.05) and Moroccan children with T1D (12.0±2.6 vs. 17.1±1.7 ng/mL, P<0.05) living in Piedmont had lower 25OHD levels than their counterparts without diabetes. Moroccan children living in Morocco with and without T1D had similar 25OHD levels. Vitamin D deficiency was associated with T1D in Caucasian and Moroccan children living in Piedmont (OR: 1.720, CI95% 1.034-2.860, P<0.03),

CONCLUSION: Lower vitamin D levels were associated with T1D in Piedmont. Further studies are necessary to explain a possible relationship between vitamin D and T1D.

lingua: Inglese