Level of parathormone in children with different sufficiency of vitamin D

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Aim: Analysis of parathormone (PTH) level in infants depending on sufficiency of vitamin D (VD).

Materials & Methods: 107 children aged 1 month to 3 years have been examined; 50 of them are of the first life year (46.7%), 29 (27.1%) second and 28 (26.2%) the third life year. Donation with Cholecalciferol (CCF) drugs prior to study including children 1 life year was conducted in 30 (60.0%) cases (average dose 655.2±50.3 IU/day), 2 life year in 11 (37.9%) cases (average dose 818.2±154.8 IU/day) and 3 life year in 4 (14.3%) children (dose 500 IU/day).

Results: Level of PTH in general group was 20.2 [12.3-25.0] pg/mL, PTH level in children who received CCF drugs was 14.9 [10.7-21.7] pg/mL and in those who did not receive CCF drugs 22.3 [15.9-26.0] pg/mL (p<0.01). Correlation between PTH and CCF intake was r=-0.21, p<0.05. Levels of VD and PTH at the first life year was estimated as 30.0 [16.2-40.3] ng/mL and 16.5 [10.7-23.8] pg/mL; at the second life year 24.0 [21.4-29.3] ng/mL and 20.7 [11.7-23.0] pg/mL; at the third life year 20.2 [13.8-22.7] ng/mL and 23.2 [18.0-26.1] pg/mL. Correlation between age and PTH level was r=0.17, p=0.05. Among children with VD deficiency (25(OH)D <20 ng/mL) PTH level was 22.9 [12.3-26.1] pg/mL; VD deficiency (25(OH)D 20-30 ng/mL) 22.3 [12.5-24.4] pg/mL; normal sufficiency (25(OH)D>30 ng/mL) 15.9 [12.4-21.9] pg/mL (p>0.05). Correlation between levels of VD and PTH was r=-0.18, p=0.05.

Conclusion: PTH levels in infants differ depending on the level of 25(OH)D, which is influenced by preventive intake of CCF drugs to a great extent.

Biography

Zakharova Irina is a Professor from Russian Medical Academy of Postgraduate Study in Moscow. She is a Chief of Department of Pediatric Russian Medical Academy of Postgraduate Continuing Study, Moscow and regular Consultant in Pediatrics in Clinic of Russian President Affairs Management and in many private clinics. She is the Member of Editorial Team of Russian medical journals Consilium Medicum and Medical Advice. She has published more than 500 papers.

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