

CALCIUM AND VITAMIN D CONCENTRATIONS IN CHILDREN WITH JIA WHO RECEIVE IMMUNOBIOLOGICAL THERAPY

Tetiana Marushko¹, Olena Onufreiv¹, Yurii Marushko², Tetiana Kurilina¹, Andrii Pysariev²

¹Pediatrics, Shupyk National Healthcare University of Ukraine, Kyiv, Ukraine, ²Pediatrics Of Postgraduate Education, Bogomolets National Medical University, Kyiv, Ukraine

Objectives and Study: The effect of immunobiological therapy (IBT) on the status of vitamin D and the level of ionized calcium (Ca⁺⁺) in patients with JIA on the background of IBT was analyzed.

Methods: The study included 67 patients aged 2-17 years. All children were divided into 2 groups depending on therapy type provided: group I - patients who received basic therapy with methotrexate for at least 1 year (32), group II - patients who were administered a complex treatment included immunobiological drugs for at least 6 months (35). Serum 25(OH)D and ionized calcium (Ca⁺⁺) levels were determined in all patients.

Results: Data demonstrates concerning the supply of vitamin D in patients with JIA depending on carried out therapy (table). No significant difference was revealed in values of serum 25(OH)D concentration in both study groups ($p > 0.05$). The majority of patients of both groups has deficiency of vitamin D: 56.2% of children of group I and 42.9% of group II. The evaluation of ionized calcium level in the blood serum revealed that abnormalities in any child and reliably significant difference between data in children group I (1.21 ± 0.01 mmol/l) and group II (1.20 ± 0.01 mmol/l) were not found.

Group	25(OH)D <30 ng/ml	Sufficient level	Insufficiency	Deficiency
I group (n=32)	75%	25%	56,2%	18,8%
II group (n=35)	60%	40%	42,9%	17,1%

Conclusions: Patients with JIA, regardless of therapy type, should be administered all year-round prophylactic dose of cholecalciferol 1000 IU per day. At the same time, it is necessary to correct or cancel this prophylactic dose during the usage of complex calcium preparations, depending on amount of vitamin D and on season from May to September, if patients or their parents do not follow the advice regarding the avoidance of insolation.

Contact e-mail address: kurilina.neo@gmail.com