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Gvasalia T.

#### MANAGING ANEMIA IN CHRONIC KIDNEY DISEASE CHILDREN

Tbilisi State Medical University, Tbilisi, Georgia Departement of Pediatrics (scientific advisor - M.D. Davitaia T.)

Chronic Kidney Disease (CKD) is significant medical problem progressing to End-stage Renal Disease (ESRD). Anemia occurs in 30% of CKD patients. It increases cardiovascular risk and is one of the leading causes of mortality. In CKD associated anemia, elevated hepcidin and vitamin D deficiency are common. Hepcidin causes intracellular sequestration of iron and increases the risk of anemia.

Therefore, some studies have shown possible role of vitamin D in regulating iron level and treating anemia. Is some clinical trials cultured hepatocytes and monocytes were treated with prohormone 25-hydroxyvitamin D or active 1,25-dihydroxyvitamin D and the result was lowered hepcidin mRNA by 0,5 fold. 1,25-dihydroxyvitamin binds to vitamin D receptor thus decreasing hepcidin level and increasing expression of intracellular iron marker, ferritin, which stores iron, deposits it and transports it to the required areas Erythropoiesis stimulating agents (ESA) seem to be used for managing anemia as they are stimulating production of red blood cells, but some studies indicate to low potential of this group of drugs, because of ESA hyporesponsiveness and several side effects such as hypertension, increased risk of thrombosis and other cardiovascular problems.In conclusion, vitamin D is important for regulation hepcidin - ferroportin balance, thus facilitating iron egress and ameliorating CKD associated anemia.

To test this hypothesis, vitamin D mediated changes can be compared using in vitro and in vivo models and studied retrospectively to determine the further means of managing anemia in CKD patients.

Ilkun I.Y., Garas M.N.

# OPTIMISATION OF PATHOGENETIC TREATMENT OF SECRETORY DIARRHEA IN INFANTS

Bukovinian state medical university, Chernivtsi, Ukraine, Department of Pediatrics and Pediatric Infectious Diseases (scientific advisor - M.D. Ivanova L., Ph.D. Garas M.)

The aim of the research was to establish clinical efficacy of oral rehydration therapy using 3rd oral rehydration generation solution in the treatment of secretory diarrhea in infants.

To achieve this aim examined 116 infants, randomly selected, with acute gastroenteritis and were admission to the hospital with signs of dehydration as a result of secretory diarrhea. The mean age of patients was 9,2±0,8 months. Among 73 evaluable patients (67,5%) children (I clinical group) to receive 3rd generation oral rehydration solution and 35 (32,4 %) patients (II clinical group) received other rehydration solutions. Dynamic assessment of the clinical severity of the infants made within 7 days of hospitalization.

Used as a major component 3rd generation oral rehydration solution showed significantly faster such signs: normalization of body temperature, frequency and character of bowel movements, disappearance of vomiting. Dynamic scoring the severity of the patients examined shows that, starting from the 3rd day of hospitalization children who received 3rd generation oral rehydration solution differed significantly better clinical performance.

In the case of 3rd generation oral rehydration solution in infants average gain in body weight in them was 103,5±10,2 g to 78,5±8,7 g (P=0.05).

In children treated with 3rd generation oral rehydration solution compared to representatives of the 2nd clinical group, the odds ratio to limit oral rehydration alone (without infusion therapy) was 3,7 (95 % CI 0,4–38,9) with an absolute risk to avoid the need for infusion therapy - 11%.

Use for the purpose of oral rehydration therapy 3rd generation oral rehydration solution is characterized by a relatively positive clinical dynamics as a likely shorter term diarrhea, earlier normalization of body temperature, cessation of vomiting and best rates to restore the lost weight. Efficacy of oral rehydration using the 3rd generation oral rehydration solution increases the chances of avoiding the need of infusion therapy in 3,7 times.