

VITAMIN D STATUS IN CHILDREN WITH CYSTIC FIBROSIS IN REP.OF MACEDONIA

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Patients with cystic fibrosis (CF) are at risk for malabsorption of fat-soluble vitamins and those with low 25-OH vitamin D levels have a higher risk of low bone mineral density and long-term skeletal complications. Routine supplementation of liposoluble vitamins is part of management in our CF center. We assessed vitamin D status for the first time in children with CF who had attended our center. Methods: We examine 30 patients with CF (14 girls) mean age 11,6 \pm 4.50 (SD) years and control group with mean age 12,73 \pm 4,71 (SD) years. We assessed them for serum levels of 25-OH vitamin D with RIA method. Results: Nine (30%) of 30 patients had marginal or low levels of 25-OH vitamin D (reference range 15-60 ng/ml). Mean level for 25-OH D was 25,75 \pm 14.7 ng/ml, median 24,74 with minimum level 6,86 ng/ml and max. 63,96 ng/ml. Mean level for 25-OHD for the control group was 43,56 \pm 14,8 ng/ml, median 43,01 ng/ml, with min. level 18,72 and max. 65,79 ng/ml. Median 25-OHD was significantly lower between CF and control group ($p < 0,05$) despite supplementation with 800-1200 IE vitamin D routinely in children with CF. Conclusion: Vitamin D, a fat soluble vitamin, is important in regulating bone accretion. 25-OHD was lower in children with CF compared to healthy children. We conclude that the widespread practice of oral supplementation with 800 IE of vitamin D is ineffective in maintaining normal vitamin D stores in many patients with CF so closer monitoring of vitamin D status in children may be warranted.

