Title: Serum vitamin D in healthy and wheezy children - is there any correlation?

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Body: Introduction. Observational studies suggest vitamin D deficiency increases risk of respiratory infections. This increased risk may contribute to incident wheezing illness in children. Aims and objectives. To identify the level of serum 25-hydroxyvitamin D in healthy and wheezy infants. Methods. It was a prospective single-center study. We have measured a level of 25-hydroxyvitamin D in 23 healthy children aged 12 months (SD 1 month) and 125 wheezers in the same age with enzyme-linked immunosorbent assay. We defined hypovitaminosis D in range 5 ng/mL to 10 ng/mL and vitamin D insufficiency ranged from 10 ng/mL to less than 15 ng/mL. Results. We found 4 deficient children in healthy group and 43 in wheezing group (OR 2.491 [0.797, 7.786], RR 1.978 [0.786, 4.978]) and 19 deficient children in wheezing group and no one in control group. Conclusions. Our results suggest not significant correlation between the level of serum 25-hydroxyvitamin D and wheezing in children of first year of life. Of cause a larger studies need to perform and confirm our findings.