

LETTER TO EDITOR (VIEWER'S CHOICE)

VITAMIN D, AN ELIXIR OF LIFE

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Author examined 858 full term newborns weighting more than 2.5 within 24 hours of their birth over a period of two years. All the mothers were given calcium with vitamin D during antenatal period. Apart from the routine examination these newborns were specifically examined for rachitic rosary, widened anterior/posterior fontanelle, sagittal suture and hypotonia. Gestational age and maturity was assessed by Dubowitz method. Venous blood was obtained and 3-5 ml of serum was sent on the same day by air to J. S. Pathology PLc, London for the estimation of 25-hydroxycholecalciferol [25(OH)D] (normal >25nmol/L) by Radioimmuno Assay. X-ray of the wrist, calcium,

phosphorus, and alkaline phosphatase were done in our hospital's laboratory. Seventy five newborns out of 858 (8.7%) babies were born with rachitic rosary. 25(OH)D was lower than normal in 56 (6.5%) newborns (mean:12.5nmol/L; range:3-22 nmol/L. which became normal in 4-6 weeks after treatment with One Alpha drops. Calcium concentration was within the normal range in all 56 newborns (2.2-2.62 nmol/L). Plasma phosphate concentration was significantly higher in all the newborns and Plasma alkaline phosphate was higher than normal in twenty six newborns (mean:195 u/L; Range: 170-220u/L). Fourteen newborns had the radiological changes early flaring, widening and

cupping seen in their wrist X- ray.

About eighty percent of calcium and phosphorus is transferred from mother to fetus through the placenta in the third trimester. Thus maternal deficiency of Vitamin D can lead to Vitamin D deficiency in the fetus and rickets in the newborn (1, 2). The seeds of osteoporosis are sown early in life. Lack of intake of calcium and vitamin D in adequate quantities and an insufficient amount of weight bearing exercise (walking and running but not swimming) leads to failure in achieving peak bone mass in late adolescence and early adulthood. Adequate amounts of vitamin D throughout life (in conjunction with exercise, proper nutrition, calcium, and magnesium) are necessary for preventing bone loss. Low levels of vitamin D and insufficient sunlight exposure (less than 20 minutes per day) are associated with osteoporosis. Vitamin D is needed to properly absorb calcium from small intestine, can help heal bone fractures, and decrease the risk of future bone breaks. Thus, 25 (OH) D should be done routinely as a screening test during antenatal period in all the

mothers and in newborns at birth as it is possible that these newborns may suffer from Osteoporosis, silent killer disease later in life.

REFERENCES

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