

Special Article - Vitamin D Deficiency

Revolution & Movement and Vitamin D

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Short Communication

Vitamin D has crucial role in maintaining skeleton and calcium hemostasis in all vertebrate including humans. Phytoplanktons are the earlier producer of vitamin D in the ocean from a billion years ago. They take energy from sun to produce carbohydrate and make a natural sun screen against UVB for protection of their genetic codes by vitamin D & its derivatives production and enough vitamin D is a chemical signal to initiate displacement from surface to deep ocean, in other word vitamin D is an Actinometer for one of the earlier living of the earth [1].

Movement and vitamin D have bidirectional relation vitamin is produced easily in all vertebrate by skin exposure to sun light but premature displacement from sun exposure area limits time to adequate vitamin D production. Vitamin is necessary for skeleton and movement and premature displacement prevents its production.

Human history showed several mass displacement and movements especially during revolutions.

Agriculture revolution needs force labor so millions of black people who was adapted to greater insolation forcedly displaced from tropical zone to northern area from one *continent to another one*, vitamin D deficiency was common among them; they called their diseases as Negro diseases or slavery diseases [2].

Industrial revolution started from England needs workers that migrate *from rural area to urban* area. Cities were overcrowded and pollution due to coal consumption prevent sunshine penetration, it made Rickets the British disease, a very common disease in industrial cities in north hemisphere [3].

Now a day we are living in information revolution era vitamin D deficiency is a pandemic problem, it is not a disease limited to black people or immigrant ones (although it is more sever in them) or in big cities with low sunshine in the north, it is a pandemic [4].

People have been displaced earlier than the time again, from where to where?

“From outside to inside “.

Epidemiologic study reveal many modern diseases from asthma and myopia to obesity, heart disease and sleep problem are linked our indoor activities or another premature or force displacement in our human history.

Cross sectional studies showed association of low vitamin D and several diseases but result of interventional studies by vitamin supplementation does not have dramatic result [5-7].

These data may reveal that *vitamin D* deficiency is a marker rather than the cause of problem like different life style and premature displacement.

It is necessary to fortified diet and give supplement In deficient ones but not to forget vitamin D deficiency are historically linked with our revolution and displacement, we are going to live in revolutionary era so at least recommend to be more outside when see low level of 25OH vitamin D in any one because we cannot replace all benefits of outdoor exposure to natural environment by simple supplementation.

It is worthy to say that isolated supplement may distort one marker of being in wrong place. Vitamin D is an actinometer and low vitamin D is a sign to think where we have been displaced?.

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