



## VIT D DEFICIENCY; DIVIDE TRIALS (DILEMA AT CIVIL OPD HYDERABAD)

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**ABSTRACT... Objectives:** To determine the outcome of vitamin deficiency in local population of (Hyderabad), come with complaints of vague symptoms of body ache, bony pain with no co morbidity. **Study design:** cross-sectional study. **Place and duration of study:** Outpatient Department of Liqat University Medical Science, Hyderabad. **Period:** 6-2-2013 to 6-2-2015. **Methodology:** This is observational cross sectional study conducted at out patient's department (LUMHS) city Hyderabad from 6-2-13 to 6-2-2015. Preliminary data was collected with the help of self-administered questionnaires which include patient's history and examination and blood sample is taken for assessing level of dehydrocholecalciferol with serum calcium and routine test. Data entered in spss 20 version, analytical software were applied for results in this study. **Result:** This study is conducted in 300 pts, among these 60% female and 36.7% male and 3.3% missing. Patients selected through (OPD) with consent and preformed proforma. Vitamin d deficiency found nearly 96% in all the patient from young age to old age 4% were missing, less than 10 level found in 24.7% (severe deficiency), 10-20 level seen 54.7% (moderate deficiency) and 20-30 found in 14.7% (mild deficiency). **Conclusion:** my results shows that ( vitamin D-deficiency) is big dilemma in our community, give rise mild, moderate and severe decreased level which leads complication which causing rickets in children and osteomalacia in adults, increase mortality and morbidity in local population.

**Key words:** Incidence, Vitamin D level, OPD, age, Hyderabad.

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### INTRODUCTION

We live in the era of world where illiteracy rate are higher than other part of the region. People doesn't know about the basic right of life, like sanitation of water, education, health facility, employment or self-insurance etc. So many health problem is running in communities which can be prevented by proper awareness and education out of them vit d is treatable issue could be solved. (Vitamin D) is important hormone formed in skin from ultra violet rays through cholecalciferol convert in liver to 24 de – hydrocholcalciferol to change active form 1-25 dehydrocholecalciferol in kidney then it regulate calcium absorption from gastrointestinal system. Like in advanced countries like America, Australia, Canada, Japan but in under developed like Pakistan is still a major health problem.<sup>1,2</sup> There are many multifactorial cause for vitamin deficiency with systemic illness but in normal healthy there is only lack of proper exposure

to sun light. Evidence suggests that vit d in sufficiency produce major health problem and bony deformities and abnormalities in muscle, and rarely do it may leads abnormality in brain with weakness neuropathy and fits and from hair loss to dermatological manifestation.<sup>3-4</sup>

Sunlight exposure promotes vitamin D synthesis due to many factors it causing deficiency in hot area of world especially South Asia, but proper knowledge and awareness we would overcome the issue.<sup>22-25</sup> We have been measuring 25-hydroxyvitamin D levels in unselected outpatients in an affluent sunny hot area of (Hyderabad). Vit d is the most common cause of osteomalacia and its incidence increase throughout the world as results of diminished exposure to sunlight caused by urbanization automobile and public transportation and modest clothing.<sup>5,20-21</sup>

## MATERIAL AND METHODS

This is prospective observational study is conducted in civil opd Hyderabad from 6-2-13 to 30-12-15. consent and prerequisite proforma filled by the patients after proper examination and lab reports with proper guideline and results compare with national and international articles. All data and variable entered in spss 20 versions and analytical software applied for results.

## RESULTS

This study is conducted in 300 patients, 60% were females and 36.7% male and 3.3% missing (Table-I). The serum calcium level found low 47% of pt and normal 49 % of pt and 4% were missing. (Table-I) and bar graph shows vitamin d deficiency found nearly 96% in all the pt from young age to old age, 4% were missing , less than 10 level found in 24.7% (severe deficiency), 10-20 level seen 54.7% (moderate deficiency) and 20-30 found in 14.7% (mild deficiency).

| Character |             | N   | %    |
|-----------|-------------|-----|------|
| Age       | < 10 years  | 74  | 24.7 |
|           | 10-20 years | 164 | 54.7 |
|           | >20 years   | 50  | 14.7 |
| Sex       | Female      | 180 | 120  |
|           | Male        | 110 | 36.7 |

Table-I. Characteristics of age and gender percentage (n=292)

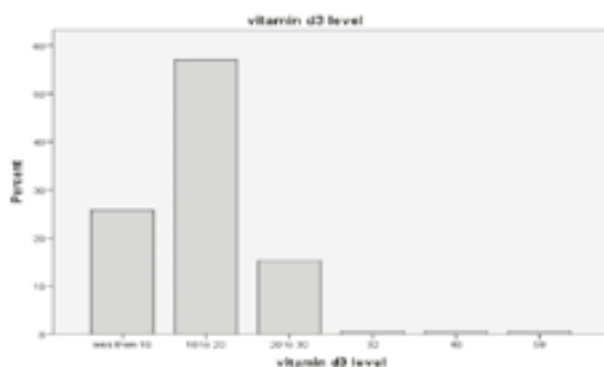


Figure-1. Frequency of vitamin D3 levels.

## DISCUSSION

This is cross sectional study conducted in Outpatient Department Liaquat Medical College Jamshoro, Hyderabad because worldwide different study documented that vitamin d

deficiency is emerging a major health problem. There are different etiology of vitamin d deficiency like un exposed to ultraviolet rays, vegetarian, kidney disease etc but my study demonstrate that vitamin deficiency multifactorial especially un exposed body to sun is very important cause in our society. Many published articles,<sup>5-15-16-17-18-19</sup> Evidence suggests that vit d is more important for health and bone physiology.<sup>22-25</sup> My observational study is recommend that vit D deficiency is more high in our part of region as compared to other study of world. Significant (vit D deficiency) or less than 20 ng/liter was found in 24% of post-menopausal women from 25 countries. The incidence varied < 1% in south Asia 29% in United States and 36 % in Italy. Patients in whom severe vit d deficiency found leads (osteomalcia) in adults and (rickets) in children level less than 10 ng per liter. The prevalence of severe vitamin deficiency is 3.5% in United States and 12.5 % in Italy.<sup>25</sup> Sunlight exposures promotes vitamin D synthesis due to many factors it causing deficiency in hot area of world especially South Asia, but proper knowledge and awareness we would overcome the issue.<sup>22-25</sup>

## CONCLUSION

My conclusion in this study that vitamin D from mild, moderate and severe deficiency at local opd of lumhs Hyderabad, which causing major health hazards in adults and children like rickets and osteomalcia. So need urgent measure like public health awareness .media compain and seminar, round table discussion work shop to prevent further mortality and morbidity from vitamin deficiency in our local population of (Hyderabad).

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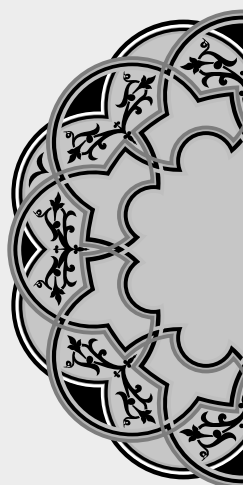
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**PREVIOUS RELATED STUDY**

Ahmed Bilal, Muhammad Owais Fazal, Fraz Saeed Qureshi, Muqqadas Shaheen, Muhammad Irfan Iqbal, Sadia Khan, Abdullah Bin Saeed. SERUM VITAMIN D DEFICIENCY, A NEW EPIDEMIC (Original) Prof Med Jour 17(1) 111-116 Jan, Feb, Mar 2010.



*“We tend to judge others by their behavior,  
and ourselves by our intentions.”*

Unknown

**AUTHORSHIP AND CONTRIBUTION DECLARATION**

| Sr. # | Author-s Full Name | Contribution to the paper                                      | Author=s Signature |
|-------|--------------------|--|--------------------|
| 1     | Dr. Santosh Kumar  | Main Author, Contribute idea, syn statics, analysis & research |                    |
| 2     | Dr. Gaffar Memon   | Collection of sample and reference                             |                    |
| 3     | Dr. Bagwan Das     | Contributes in sample collection & biostatics                  |                    |
| 4     | Dr. Pushpa Mohan   | Research - Statics   |                    |