

Original Research article

Vitamin D deficiency An “under-diagnosed” truth in a Surgical OPD

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ABSTRACT

Background: Vitamin D deficiency is prevalent worldwide. Its prevalence in India ranges from 34%- 99% with most studies reporting a range of 80% to 90%.

Methods: The study was conducted at Sushrut Surgical hospital, Nallasopara, Maharashtra, and 98 patients were included. The patients who presented to the OPD with symptoms of chest pain/ abdomen pain/ breast pain/ diffuse body pain/ backache were evaluated with routine clinical examination and investigations were done. According to their symptoms, protocol for chest pain like ECG, Cardiac enzymes, Chest X-ray, Stress test etc. Similarly, breast pain patients underwent clinical examination of breast and axilla and ultrasound/mammography of both the breasts was done. Abdomen pain patients were evaluated with ultrasound and gastroduodenoscopy. The patients who had no conclusive evidence of any obvious pathology were included in this study and evaluated for serum Vitamin D and Vitamin B12 levels.

Result: Low levels of Vitamin D were diagnosed in 92% females and 8% males.

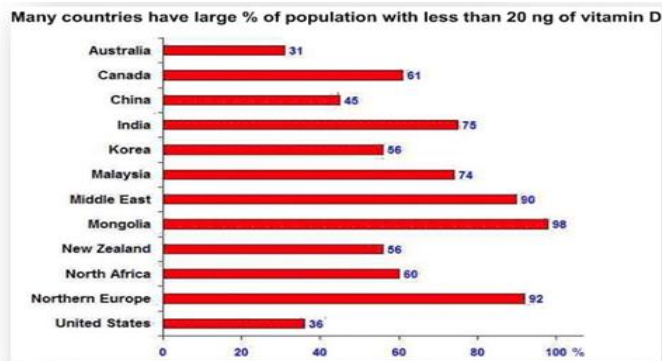
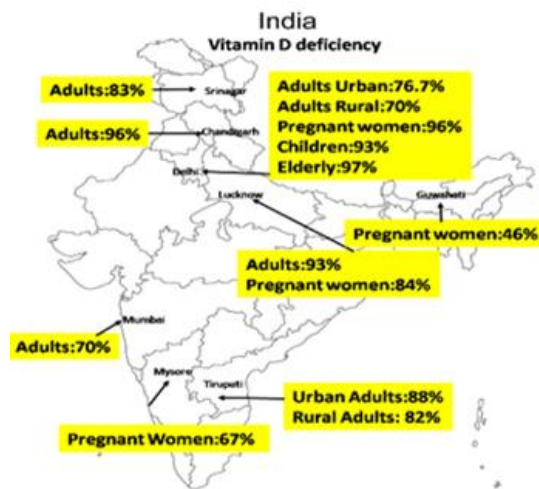
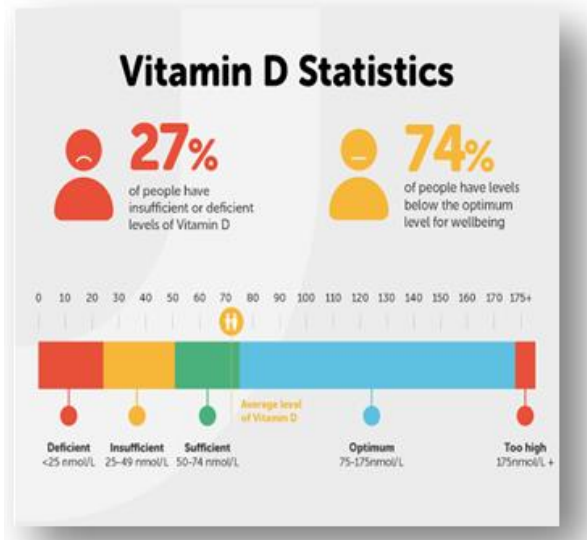
Conclusion: So, considering the high number of OPD cases having this presentation in surgical practice warns a much more prevalence in medical OPD which may go undiagnosed/referred/treated empirically with only analgesics if this possibility of Vitamin D deficiency is not thought of.

Keywords - #abdominal pain #breast pain #chest pain #diffuse body pain #vitamin D deficiency

INTRODUCTION

Vitamin D deficiency is prevalent worldwide. Its prevalence in India ranges from 34%- 99% with most studies reporting a range of 80% to 90%

According to the classification given by the US Endocrine Society, <20 ng/mL of serum 25(OH) D with consequent and consistent elevation of parathyroid hormone and a decrease in intestinal calcium absorption is considered to be Vitamin D deficiency.



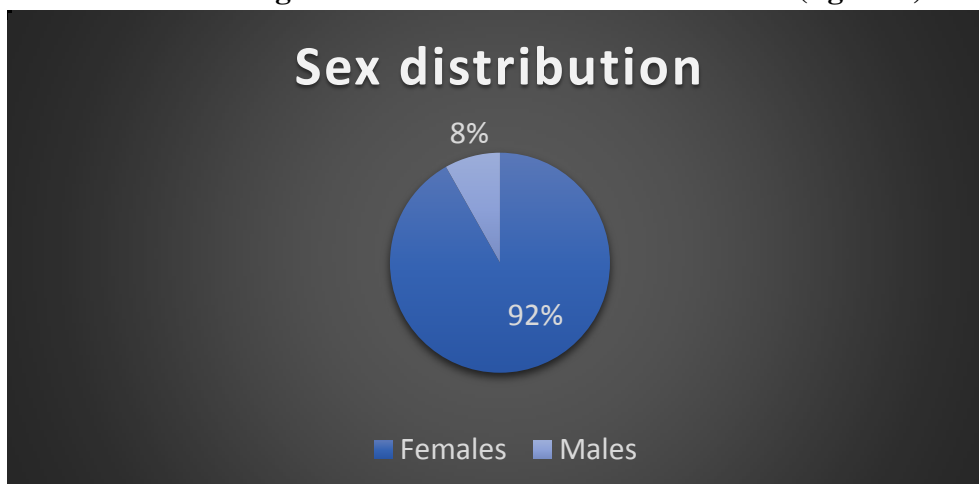
The cut off values for deficiency of vitamin D is 25(OH)D <20 ng/ml, that of insufficiency is 21-29 ng/ml and sufficiency is >30 ng/ml. The insufficient exposure to sunlight and insufficient fortification of food seems to be the cause of the deficiency. Dark skin tone people have natural sun protection and require three to five times longer exposure.

MATERIALS AND METHOD

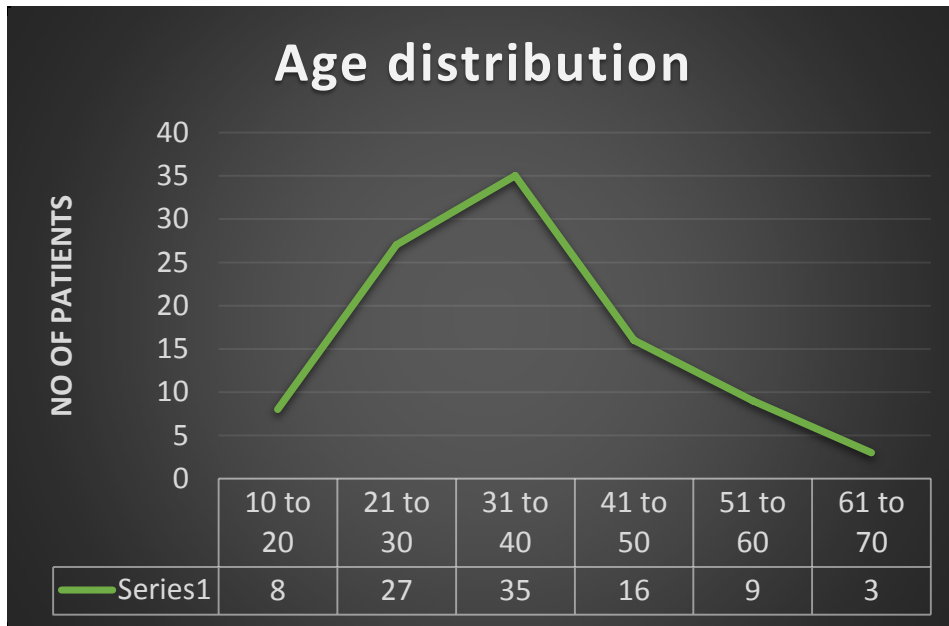
- The study was conducted at Dr DY Patil medical college, hospital and research center, Pimpri, Pune - 411018, in 2021-2022, and 98 patients were included. The patients who presented to the OPD with symptoms of chest pain/ abdomen pain/ breast pain/ diffuse body pain/ backache were evaluated with routine clinical examination and investigations were done. According to their symptoms, protocol for chest pain like ECG, Cardiac enzymes, Chest X-ray, Stress test etc. were done. Similarly, breast pain patients underwent clinical examination of breast and axilla and ultrasound/mammography of both the breasts was done. Abdomen pain patients were evaluated with ultrasound and gastroduodenoscopy. The patients who had no conclusive evidence of any obvious pathology were included in this study and evaluated for serum Vitamin D and Vitamin B12 levels

STATISTICS

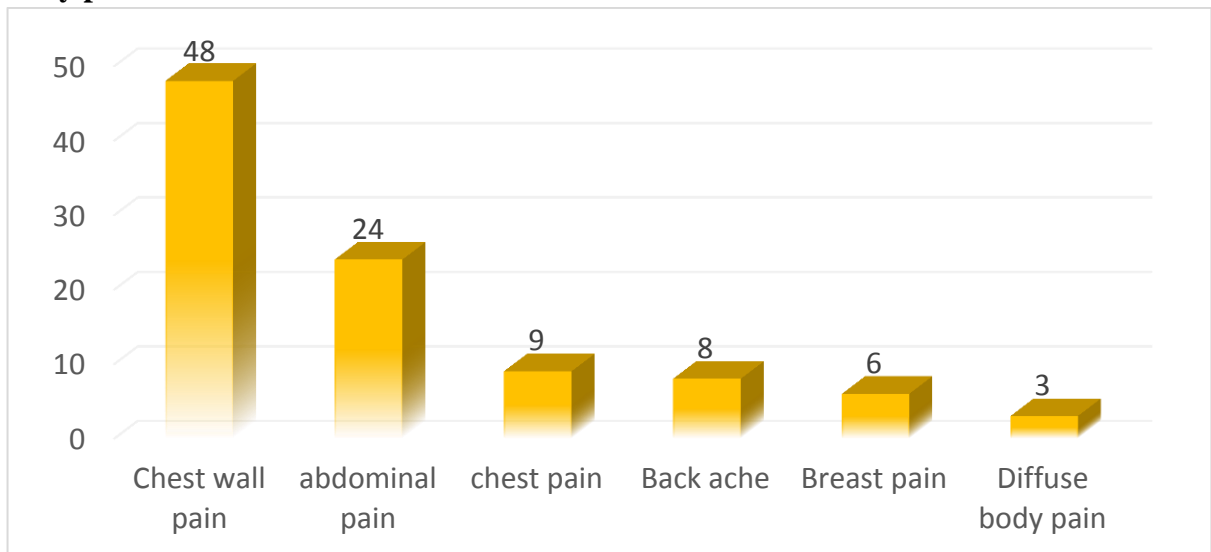
In our study, 98 patients were included. The study population age group ranged from age 14-70 years and was predominantly composed of females. **Low levels of Vitamin D were diagnosed in 92% females and 8% males (figure 1).**



Our study population showed **highest number of cases in the age group 31 to 40 years**

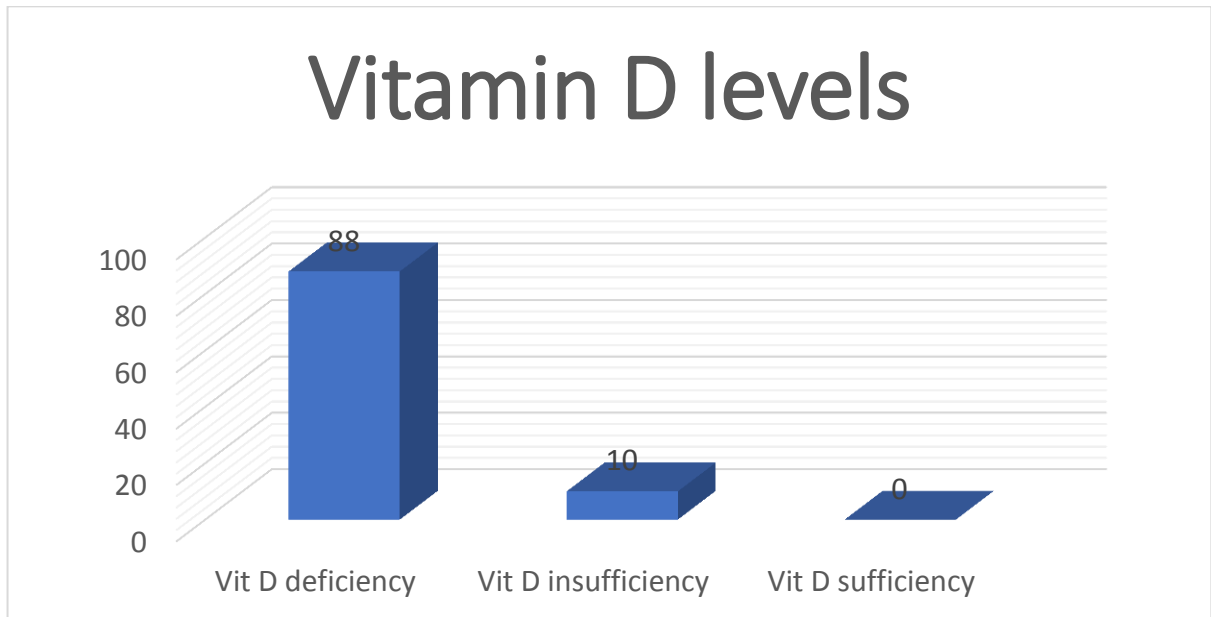


The most common symptom seen was **chest wall pain in 48 patients**, **abdominal pain was present in 24 patients**, **9 patients complained of chest pain**, **8 had back ache complains**, **6 were complaining of breast pain** and **3 complained of diffuse body pain**

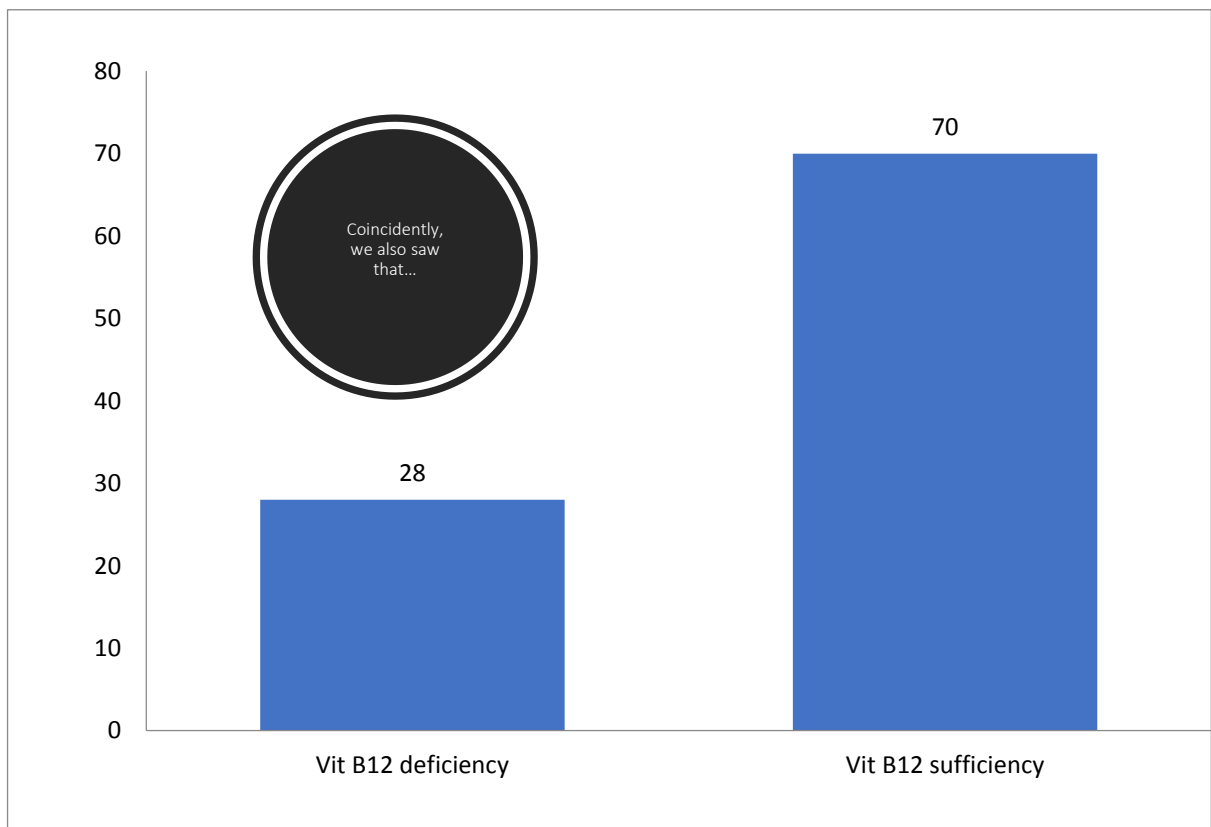


RESULTS

Deficiency of Vitamin D was identified in **88 patients** whereas **10 patients had only insufficiency of Vitamin D**



28 patients had deficiency of Vitamin B12 and 70 patients had sufficient levels of the vitamin



DISCUSSION

Patients with symptoms like abdomen pain, chest pain, and breast pain with no diagnostic yield of necessary investigations underwent serum Vitamin D levels and Vitamin B 12 levels which were found to be significantly low. After supplementation of the vitamins, symptomatic improvement was noticed in the study population. This study reveals the abundancy of cases of Vitamin D

deficiency/insufficiency presenting as upper abdomen and chest wall pain; thereby demanding high index of suspicion when all probable clinical investigations fail to diagnose the condition and its etiology.

CONCLUSION

Considering the high number of cases having chest wall pain, chest pain, abdominal pain or plain diffuse body ache presenting in surgery OPD, a much more prevalence of similar cases with similar complains must be presenting in a medical OPD which may go undiagnosed/referred/treated empirically with only analgesics if this possibility of Vitamin D deficiency is not thought of.

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Thank you,
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