

Prevalence of vitamin D deficiency and its associated factors among rheumatoid arthritis patients managed in a rheumatology unit of a tertiary care hospital in Sri Lanka

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Introduction

Prevalence of unrecognised vitamin D deficiency can be high among rheumatoid arthritis (RA) patients. Lack of mobility among these patients prevents them receiving adequate sun exposure. Low levels of vitamin D could potentially cause a higher disease burden and disease activity.

Materials and methods

A descriptive cross-sectional study was done among patients with RA with a calculated sample size of 137. Being diagnosed according to American College of Rheumatology (ACR) – European League Against Rheumatism (EULAR) criteria and availability of serum vitamin D level were among the inclusion criteria. Patients with disabilities due to causes other than RA were excluded. All patients satisfying the eligibility criteria were invited to be recruited. A data extraction sheet was utilised. Data was collected by investigators. The associations were evaluated with Chi square test and Spearman correlation coefficient at a significance level of 5%. Ethics approval was obtained from the ethics committee of National Hospital of Sri Lanka (NHSL).

Results and discussion

The response rate was 92%. The median (interquartile range (IQR)) age of participants was 56.5 (49.0 to 64.25). Among participants, the majority (n=117, 92.9%) were females. Only 11.1% (n=14) had normal vitamin D levels. The insufficient and deficient categories comprised of 38.1% (n=48) and 50.8% (n=64). The commonest symptoms included; joint pain (n=101, 80.2%), fatigue (n=84, 66.7%) and muscle pain (n=78, 61.9%). Deficiency or insufficiency was lowest in the occupation category of 'agricultural and labourer' (37.5%) while 100% in many indoor-occupied categories and among Muslims. 'Deficiency or insufficiency' was significantly associated with muscle pain (p=0.001) but not with Clinical

Disease Activity Index (CDAI) (p=0.896), fatigue (p=0.549) or joint pain (p=0.735).

Conclusions

Vitamin D 'deficiency or insufficiency' is common among patients with RA and commoner in the sub-categories with muscle pain and with restricted sun exposure. More research must be promoted in this regard. ■

Conflict of interest statement

None declared.

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