**Prevalence of vitamin D deficiency and its associated factors among the urban elderly population in Hyderabad metropolitan city, South India**

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**Abstract**

**Background:** Deficiency of vitamin D has been associated with various health conditions. However, vitamin D deficiency (VDD) and factors associated with VDD are not well studied, especially among the urban elderly population of India.

**Aim:** To assess the prevalence of VDD and its associated factors among the urban free-living elderly population in Hyderabad.

**Subjects and methods:** A community-based cross-sectional study was conducted among 298 urban elderly (≥60 years) by adapting a random sampling procedure. Demographic particulars were collected. Blood pressure and anthropometric measurements were recorded using standard equipment. Fasting glucose, lipid profile and 25-hydroxy vitamin D [25(OH) D] were estimated in plasma samples.

**Results:** The mean ± SE plasma vitamin D and the prevalence of VDD among the urban elderly population were 19.3 ± 0.54 (ng/ml) and 56.3%, respectively. The prevalence of VDD was significantly associated with education, high body mass index (BMI), hypertension (HT) and metabolic syndrome (MS). Multiple logistic regression analysis revealed HT as a significant predictor of vitamin D deficiency and the risk of VDD was double among the elderly with hypertension.

**Conclusions:** The prevalence of VDD was high among the urban elderly population in the south Indian city of Hyderabad. High BMI, MS, HT and education are significant associated factors of VDD.