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Volume 65, Issue 10S Acute Coronary Syndromes**PREVALENCE OF VITAMIN D DEFICIENCY IS MORE COMMON AMONG FRAIL OLDER (≥ 75 YEARS) PATIENTS WITH NON ST-ELEVATION ACUTE CORONARY SYNDROME MANAGED BY INVASIVE STRATEGY**

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Insights from Subgroups: Age, Gender and Diabetes

Abstract Category: 2. Acute Coronary Syndromes: Clinical

Presentation Number: 1138-066

Authors: *Murugapathy Veerasamy, Hannah Sinclair, Weiliang Qiu, Dermot Neely, Vijayalakshmi Kunadian, Newcastle University, Newcastle upon Tyne, United Kingdom, Freeman Hospital, Newcastle upon Tyne, United Kingdom*

Background: Vitamin D deficiency (VDD) and frailty are common among older population. VDD has been linked to increased arterial stiffness, endothelial dysfunction, increased coronary artery calcium score and coronary artery disease. Frailty is an independent predictor of adverse cardiovascular outcomes in acute coronary syndrome. We aim to evaluate the prevalence of VDD and its relation to frailty status in older patients admitted with non ST-elevation acute coronary syndrome (NSTEMI) and managed by invasive treatment strategy in a tertiary cardiac centre.

Methods: Vitamin D levels were evaluated in 191 consecutive patients who presented with NSTEMI for invasive management to a tertiary cardiac centre as part of an ongoing study (ICON1-A Study to Improve Cardiovascular Outcomes in High Risk Patients with Acute Coronary Syndrome). Vitamin D level was analysed on blood samples collected prior to coronary angiogram and or angioplasty by Roche Elecsys® Vitamin D total assay. Vitamin D level <25 nmol/L was considered deficient. Frailty was assessed by Fried criteria.

Results: The mean age was 81.4 years (standard deviation 4.1) and 41.4% were females. The diagnosis was non ST elevation myocardial infarction in 81.7% and unstable angina in 18.3%. Patients were managed by percutaneous coronary intervention (85.9%), coronary artery bypass graft surgery (3.7%) and coronary angiography only (10.4%). 33% of the patients were frail. 11% of the patients were on Vitamin D supplements. The mean Vitamin D level was 30.7 nmol/L in frail and 37.8 nmol/L in non-frail patients ($p=0.089$). Vitamin D deficiency was noted in 43.5% of patients. The prevalence of VDD was significantly higher in frail patients compared to non-frail patients (54.0% vs. 38.3%, $p=0.045$).

Conclusion: Among older (≥ 75 year) NSTEMI patients managed by invasive strategy VDD is more prevalent in frail patients. The impact of VDD on cardiovascular events in frail older patients after acute coronary syndrome needs to be evaluated further.