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Title of presentation
Malnutrition and vitamin D deficiency in hip fracture patients

1. Brief description/abstract for the content of the presentation. 150 words maximum

Introduction / Objectives / Methodology / Results / Conclusion

Introduction: Malnutrition and vitamin D deficiency are common in older adults living in the community.

Objectives: The primary aim of this study was to explore the potential relationship between serum 25-hydroxyvitamin D (25(OH)D) levels and Mini Nutritional Assessment (MNA) score, in elderly (≥65 years old) subjects with and without a hip fracture.

Methodology: 101 patients with a hip fracture were recruited from a single urban hospital in Athens, Greece, and 85 community dwelling subjects with no history of hip fracture. Serum 25(OH)D was measured, nutritional status was determined by the MNA questionnaire in all subjects, and linear correlation between variables was investigated. Receiver operator characteristic (ROC) curve analysis was performed and discriminatory performance was further assessed by calculating positive and negative likelihood ratios (LR).

Results: MNA scores were significantly correlated with 25(OH)D levels (rho=0.685, p<0.001); this finding was robust in both groups and unaffected by gender. ROC curve analysis demonstrated an area under the curve (AUC) of 0.860 (standard error (SE) 0.026, 95% confidence interval (CI): 0.810-0.910), which provided a significantly better estimation of 25(OH)D status than simple guess (p<0.001). The lowest cutoff value in MNA score, with sensitivity of >90% was 25.25, which was associated with a sensitivity of 90.9% and a specificity of 53.6%. The same analysis revealed acceptable results only within hip fracture patients.

Conclusions: MNA score might be a satisfactory surrogate marker for 25(OH)D levels with which it is linearly correlated. However, it appears that its discriminatory performance, as a diagnostic tool for 25(OH)D insufficiency, is suboptimal.

2. Please give two to three key references which can be used to inform future work:


3. Please identify up to three specific outcomes that dietitians and participants will take away to inform their future practice.

- MNA score is linearly correlated to 25(OH)D levels in the elderly
- MNA score might be a satisfactory surrogate marker for 25(OH)D levels in the elderly.
- However, MNA's discriminatory performance, as a diagnostic tool for 25(OH)D insufficiency, is suboptimal.