

Factors associated with one-year mortality of patients admitted with fragility hip fracture; a follow up study in Southern Sri Lanka

Abstract

Introduction

This study examined the factors that are associated with mortality within the first 12 months, of patients admitted with fragility hip fracture to a tertiary care center in Southern Sri Lanka.

Methods

One hundred and eighty consecutive patients admitted with new fragility hip fracture were followed up for 12 months post-fracture. Apart from age and gender, information related to physical dependency (prefracture and at discharge) and comorbidity were collected from all subjects.

Results

Of 180 patients (149 women), 107 had surgery while the rest were managed conservatively. Mean (SD) age of study subjects was 76.5 (9.2 years). Thirty-three patients died within the first 12 months were older and had higher comorbidity and physical impairment before fracture and at discharge from the hospital, when compared with those survived. Relative risk (95% CI, *p* value) of death for being a male was 6.52 (3.18–11.5, < 0.001) and corresponding values for conservative management were 6.59 (2.86–15.2, < 0.001). In the ROC analysis, in which mortality/survival was taken as state variable, AUCs for age, Charlson index, age-adjusted Charlson index, and Barthel index before fracture and Barthel index at discharge were 0.77 (0.04), 0.79 (0.04), 0.70 (0.05), 0.67 (0.05), and 0.76 (0.04) (*p* < 0.01 for all). Age-adjusted odd ratios (95% CI) of ACCI, CCI, surgical management, and Barthel index before fracture and at discharge were 2.21 (1.37 to 3.57), 2.37 (1.46 to 3.83), 0.18 (0.06 to 0.53), 0.91 (0.85 to 0.97), and 0.93 (0.88 to 0.99), respectively (*p* < 0.05 for all).

Conclusions

We conclude that advanced age, male gender, higher comorbidity, physical impairment before and after fracture and conservative management lead to a higher risk of mortality in patients admitted with incident fragility hip fracture. This study can be used as a platform for future research in this area in Sri Lanka.