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Daytime Geriatric Hip Fracture Surgery Reduces Early And Late Mortality And Improve Long-Term Survival

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Introduction

Geriatric hip fracture and their care are a major burden and challenge to our health care system. The trend is ever increasing due to our ageing population. Although it is recommended in many international guidelines for hip fracture management, no major study has been performed to examine the relationship of daytime surgery and mortality in Chinese population.

Objectives

To report the relationship of daytime surgery and mortality in Chinese population.

Methodology

We undertook a retrospective review of data collected from the Clinical Data Analysis and Reporting System (CDARS) of Hospital Authority of Hong Kong on all patients aged 65 or above who presented to all acute public hospitals between 2000 and 2014 with hip fracture treated surgically. Patients were divided into two groups according to timing of surgery: daytime group (surgery performed from 8am to 8pm) and nighttime group (from 8pm to 8am). Between the two groups, the 30-day, one-year and five-year mortality were compared using Chi-square test. The result was considered statistically significant if p value is less than 0.05. All analysis was performed using SPSS software.

Result

There were 42590 patients (13817 men and 32160 women) included in the study. The patient age ranged from 65 to 112 (mean: 82). 92.6% of patients had day time surgery while 7.4% of patients had nighttime surgery. For each age group the percentage of daytime surgery or nighttime surgery was similar and no correlation between the timing of surgery and sex was found. There was no statistically significant difference of survival in 30-day, 1-year and 5-year mortality between daytime and nighttime surgery. By breaking down into sex and different age group, there were decreases in 30-day, 1-year and 5-year mortality in daytime surgery group among different age group, and the reduction in mortality in female aged 75-84 was statistically significant. This is a large observational study of geriatric

hip fracture in Chinese population, with complete follow up for mortality statistics. The result showed that female aged 75-84 benefit the most from daytime surgery with statistically significant decreases in short-term and long-term mortality. This group of patient comprise of 32% of all geriatric hip fracture population. In view of the significant survival benefit, daytime geriatric hip fracture surgery should be recommended.