Improving Survival Through Collaboration: Orthogeriatric Collaborative Intervention Program for Hip Fracture Surgery

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- Mortality
- Geriatrics
- Orthogeriatric collaboration

Introduction
Geriatric hip fractures and their care are a major burden and challenge to our health care system. It is not uncommon to see these patients with multiple comorbidities, which complicates the perioperative course. Although it is recommended in many international guidelines for hip fracture management, no major study has been performed to examine the effect of Orthogeriatric collaborative intervention program on mortality in the Chinese population.

Objectives
To examine the effect of Orthogeriatric collaborative intervention program on mortality in the 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 from 2005 to 2014. All patients aged 65 or above who presented to five acute public hospitals between 2000 and 2014 with hip fracture treated surgically. Patients were divided into two groups according to availability of routine geriatrics service. Those without routine geriatric service were classified as control group. Among different groups, the 30-day, one-year and five-year mortality were compared with Chi-square test. Survival was calculated using survival analysis. The result was considered statistically significant if p value is less than 0.05. All analyses were performed using SPSS software.

Result
There were 15584 patients (4862 men and 10722 women) included in the study. 52.4% of patients had routine geriatric assessment while 47.6% of patients had no routine geriatric assessment. Patients with routine geriatric assessment had longer survival (mean survival 1907 days) while for patients without routine geriatric assessment the mean survival was 1856 days (p=0.05). The geriatric group also had lower 30-day, 1-year and 5-year mortality compared with the control group. It was statistically significant. By breaking down in sex and different age group, there
were decrease in 30-day 1-year and 5-year mortality in day time surgery group among different age group, and the reduction in mortality in male aged 70-74 was statistically significant. This is a large observational study of geriatric hip fracture in Chinese, with complete follow up for mortality statistics. The result showed that routine geriatrics assessment improves survival and decrease early and late mortalities, especially in male patients age 70-74. The result is promising and warrant re-examination of model of care and resources to achieve the goal.