The Prevalence of Surgical Intervention and Initiation of Secondary Osteoporosis Treatment in Older Patients with Fragility Fracture

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ABSTRACT

INTRODUCTION

Osteoporosis is a systemic skeletal disorder characterized by low bone mass and deterioration in micro-architecture of bone tissue leading to porous bones. This can increase the fracture risk resulting in severe complications and thereby reducing quality of life. Thus, early surgical intervention following a fragility fracture is crucial in managing this condition to prevent functional disability. In addition, the initiation of secondary osteoporosis treatment is important in reducing future fractures and thereby improving bone health.

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AIM

We aim to explore the prevalence of surgical intervention and initiation of secondary osteoporosis treatment after a hip fracture in patients 60 years old and above at a tertiary hospital in Negeri Sembilan, Malaysia.

METHODOLOGY

This is an ongoing prospective cohort study initiated from 1st January, 2024. The study included all patients 60 years old and above presenting with a hip fracture following a fall and are referred to the Geriatric Unit. These patients are followed up from the time of admission to the time of discharge. As of the date of this abstract, 50 patients have been collected up to 30th June, 2024. Baseline demographic data, fracture-related information and management of fragility fracture during the study period were collected.

RESULT

Among 50 patients, the median age is 77 (SD 9.2) years, and the majority are female (76%). Ninety-four percent of the patients have multiple comorbidities. Sixty-eight percent have mobility aided by an assistive device. Most of the patients experience a fall at home (80%), and 36% of them sustained a right intertrochanteric fracture. A proportion of patients (42%) underwent hip surgery, but 95% of them did not have the operation within 48 hours. The duration of hospitalization is 12 (SD 5.3) days. Most patients (82%) receive bone health supplements (calcium and vitamin D), while only 36% are given anti-resorptive treatment prior to discharge.

DISCUSSION

This study was conducted to understand the management of fragility fractures at our hospital. A significant number of study patients did not receive surgery within 48 hours, as recommended by international guidelines. A delay in surgical intervention can lead to increased complications, prolonged hospitalization, and a higher risk of adverse outcomes. Additionally, the low rate of anti-resorptive therapy initiation among these patients raises concerns regarding secondary prevention.

CONCLUSION

Hip fracture outcomes appeared to be suboptimal in various parameters, such as the number of patients undergoing surgery, the time to surgery, and secondary prevention. Given the profound socioeconomic burden of hip fractures, an evidence-based local policy on hip fractures is imperative as a guide for clinicians.