

Incidence of mortality among elderly patients [60 years and above] after surgical intervention for trochanteric fractures presenting to the Department of Orthopaedics at Dr. RPGMC Kangra, Tanda

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Abstract

Background: To study the incidence of mortality among elderly patients [60 years and above] after surgical intervention for trochanteric fractures presenting to the Department of Orthopaedics at Dr. RPGMC Kangra at Tanda

Methods: Prospective Study conducted at Department of Orthopedics, Dr. R.P.G.M.C. Kangra at Tanda, Himachal Pradesh

Result: Our study observed that out of 127 patients, 11% (n=14/127) patients could not survive while 89%

(n=113/127) patients survived. Incidence of mortality was 11%.

Conclusion: In our study, in elderly trochanteric fractures, the observed mortality was 11% which is lower than previously reported studies

Keywords: Mortality, Trochanteric fracture, Elderly

Introduction

Hip fractures in the elderly lead to functional decline and a diminished quality of life. Furthermore, these fractures are associated with an in-hospital mortality rate of 7–14%, reaching 14–36% within 1-year of surgery. Hip

fractures are also complicated by a 0– 49% need for revision surgery, which is influenced heavily by fracture characteristics and surgical interventions.¹

Higher mortality rate in males, despite younger mean age has been reported due to trochanteric fractures.² A nationwide register-based cohort study including more than 41,000 hip fracture patients, there was an increased 1-year mortality in men and that the mean survival time was slightly shorter after trochanteric and subtrochanteric fracture (3.3–3.4 years) compared with other types of hip fractures (3.5–3.8 years). A meta-analysis reported that the relative hazard for all-cause mortality in the first 3 months after a hip fracture was 5.75 in women and 7.95 in men.³

Material and method

Study area: Department of orthopedics, Dr. RPGMC Kangra at Tanda, Himachal Pradesh.

Study design: This was an open cohort, prospective study.

Study population: Patients of age ≥ 60 years presenting to the Department of Orthopaedics with fracture trochanteric of femur and undergoing surgical intervention.

Study duration

The total study duration was one year i.e., from date of start of study. In first 6 months, all patients fulfilling the inclusion criteria were recruited and followed-up for the next six months. The last patient was recruited six-months from the day of start of study.

Sample size

All patients fulfilling the inclusion criteria were included in the study.

Inclusion criteria

- Patients of trochanteric fractures
- Age 60 years and above.

- Those giving consent for inclusion in the study.

Exclusion criteria

- Concomitant trauma involving other systems.
- Associated fracture of the pelvis.
- Bilateral hip fracture.
- Pathological fracture.
- Who do not give consent

The study was initiated following approval from Institutional Ethics Committee, Dr. RPGMC Kangra at Tanda. The patients had the right to withdraw from participation in the study.

Results

Our study observed that out of 127 patients, 11% (n=14/127) patients could not survive while 89% (n=113/127) patients survived. Incidence of mortality was 11%.

Table 1: Distribution of patients on the basis of mortality (N=127)

Mortality	Frequency	Percentage
Yes (Group A)	14	11
No (Group B)	113	89
Total	127	100

Discussion

In our study, overall mortality was 11.02% (n=14). Mnif et al in 2009 examined the epidemiological profile of trochanteric fractures and assessed mortality and morbidity. In their study, mortality at 2 years was 28%.³⁶ In this study, although, non-survivors had higher age; the difference was not statistically significant. Sex, BMI, and arm muscle circumference were not significantly associated with mortality. Mattison et al found a higher mortality rate in males, despite younger mean age.⁵⁴ As a comparison, the expected 1-year mortality for an unselected population of 80 years old in Sweden 2017 was 3.5% for females and 4.8% for males.⁵⁵

Conclusion

In our study, in elderly trochanteric fractures, the observed mortality was 11% which is lower than previously reported studies

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