

Demographic profile of elderly patients [60 years and above] of trochanteric fractures presenting to the Department of Orthopaedics at Dr. RPGMC Kangra, Tanda

¹Dr. Gurjant Singh Sandhu, Resident, Department of Orthopaedics, Dr Rajendra Prasad Government Medical College Kangra at Tanda.

²Dr Rajan Singh, Resident, Department of Orthopaedics, Dr Rajendra Prasad Government Medical College Kangra at Tanda.

³Dr Bhanu Awasthi, Principal cum professor Dr Rajendra Prasad Government Medical College Kangra at Tanda.

⁴Dr Sunil Raina, Professor and Head Department of Community Medicine Dr Rajendra Prasad Government Medical College Kangra at Tanda.

⁵Dixit Gautam, Resident, Department of Orthopaedics, Dr Rajendra Prasad Government Medical College Kangra at Tanda.

⁶Dr. Mankiran Kaur, Senior Resident, Department of Paediatrics, Dr Rajendra Prasad Government Medical College Kangra at Tanda.

⁷Dr Varsha Patial, Resident, Department of Radio-diagnosis, Dr Rajendra Prasad Government Medical College Kangra at Tanda.

Corresponding Author: Dixit Gautam, Resident, Department of Orthopaedics, Dr Rajendra Prasad Government Medical College Kangra at Tanda.

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Abstract

Background: Trochanteric fracture overwhelmingly affects elderly subjects. Frequency is increasing with population ageing despite the development of treatments for osteoporosis

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

Result: Majority of the 34.6% patients aged between 61-70 years followed by 29.1% patients aged 71-80 and 81-90 years. Only 7.1% patients were elderly (>90 years). 52.8% patients were females and remaining 47.2% are males. 48% patients were lower middle status followed by 37.8% patients were middle.

Conclusion: 75% urban patients had middle status followed by 25% were of lower middle status.

Keywords: Demographic profile, Trochanteric fracture, Elderly

Introduction

Trochanteric fracture overwhelmingly affects elderly subjects. Frequency is increasing with population ageing despite the development of treatments for osteoporosis.¹

Trochanteric fracture involves the proximal femur between the cervical region and the shaft. Subtrochanteric fracture, with a fracture line running from an area within 5 cm distal to the lesser trochanter, is usually also included in the definition.²

There are numerous classifications of trochanteric fractures, based on fracture line location³ and on displacement and the consequences for external reduction manoeuvres.⁴ Two classifications are particularly widely used including the Evans classification⁵, modified by Jensen and Michaelsen⁶, is based on fracture site stability and comprises 5 types, from non-displaced 2-fragment (Type I) to medially and postero-laterally comminuted fracture (Type V), and The AO classification. Both classifications have limited inter- and intra-observer reproducibility, although this is better in the AO classification at the level of the 3 principal groups.⁷

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

A total of 127 elderly patients after surgical intervention for trochanteric fractures were included in the study. Table 1 given below summarizes the general characteristics of the study population. General characteristics include age, sex, and socioeconomic status.

Table 1: General characteristics of the study population (N=127)

	Age	Frequency	Percent
Age (Years)	61-70 years	44	34.6
	71-80 years	37	29.1
	81-90 years	37	29.1
	>90 years	9	7.1
Sex	Male	60	47.2
	Female	67	52.8

UdaiParik Scale	Upper	0	0
	Upper Middle	2	1.6
	Middle	48	37.8
	Lower Middle	57	48.0
	Lower	16	12.6
Kuppuswamy Scale	Upper	0	0
	Upper Middle	0	0
	Middle	3	75
	Lower Middle	1	25
	Lower	0	0

Majority of the 34.6% patients aged between 61-70 years followed by 29.1% patients aged 71-80 and 81-90 years. Only 7.1% patients were elderly (>90 years). 52.8% patients were females and remaining 47.2% are males. 48% patients were lower middle status followed by 37.8% patients were middle. 75% urban patients had middle status followed by 25% were of lower middle status.

Discussion

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.⁴

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.⁵

In 2010 Kannegaard et al.⁶ observed in a nationwide register-based cohort study including more than 41,000 Danish hip fracture patients, 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). Haentjens et al.⁷ performed time-to-event meta-analyses and showed 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. Obviously, several factors can affect the postoperative mortality, but the time to surgery is one of the most debated ones.

Conclusion

75% urban patients had middle status followed by 25% were of lower middle status.

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