

A study of clinical profile of unstable Intertrochanteric fracture femur in elderly

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Abstract

Background: Bone density declines by 58% in women and 39% in men in region of femoral neck as they grow older; in Intertrochanteric region it declines by 53% in women and 35% men as they grow older. Thus, elderly people are more prone for fractures of femur. **Objective:** To study the clinical profile of unstable Intertrochanteric fracture femur in elderly. **Methods:** The present clinical study was carried out at our tertiary care hospital. Study duration was from Jan 2009 to Aug 2010. 50 patients over the age of 60 years with unstable Intertrochanteric fracture were selected. Age and sex distribution of the patients, side of the limb involved, distribution of fracture pattern in study group according to Boyd and Griffin classification, associated injury and distribution of associated co-morbidities in study group was described. **Results:** Most of the patients were between 60-70 years of age. The average age of study group was 70.9 years. Most of the patients (64%) in the present study were males. The right side was affected more with 28 (56%) patients than left side with 22 (44%) patients. In our study 10% patients had associated injury. Out of them 2 (4%) patients had Colles fracture, 1 (2%) patient had Femur fracture, 1 (2%) patient had pubic rami fracture and 1(2%) had Clavicle fracture. All patients included in our study were having unstable Intertrochanteric fracture. 32 (64%) of them had Boyd's and Griffin Type III and 18 (36%) had Type IV fracture. In present series, systemic hypertension was commonest ailment found in 36% of cases. Other co-morbidities noted in our study were Anaemia in 24% of patients, Diabetes Mellitus in 10% of patients, Ischemic Heart Disease in 10% of patients, COPD in 8% of patients and Pulmonary Koch's in 4% of patients.

Keywords: Boyd and Griffin classification, Intertrochanteric fracture femur.

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INTRODUCTION

Hip fracture is an important cause of mortality and disability in the elderly and there has been an increase in their frequency over several decades^{1,2}. The vast majority of hip fractures result from fall in men and women with sub optimal bone strength. Only a minority of hip fractures are due to severe trauma or pathological lesions³. Bone density declines by 58% in women and

39% in men in region of femoral neck as they grow older; in Intertrochanteric region it declines by 53% in women and 35% men as they grow older⁴. Thus, elderly people are more prone for fractures of femur. The majority of hip fracture patients are elderly with multiple concomitant medical problems. The present study was done to study the clinical profile of unstable Intertrochanteric fracture femur in elderly.

METHODS

The present clinical study was carried out at our tertiary care hospital. Study duration was from Jan 2009 to Aug 2010. 50 patients over the age of 60 years with unstable Intertrochanteric fracture were selected. Patients with age less than 60 years, patients who were previously non ambulatory, patients with stable Intertrochanteric fracture and the patients with purely subtrochanteric fracture were excluded from the study. Age and sex distribution of the patients, side of the limb involved, distribution of fracture pattern in study group according to Boyd and Griffin

classification ⁵, associated injury and distribution of associated co-morbidities in study group was described.

RESULTS

Table 1: Age Distribution of Cases

Age (years)	Number of patients	Percentage
60-70	25	50
70-80	17	34
>80	8	16
Total	50	100

Table 2: Sex Distribution of Cases

Sex	Number of patients	Percentage
Male	32	64%
Female	18	36%
Total	50	100

Table 3: Side of Limb Injured

Side	Number of patients	Percentage
Right	28	56
Left	22	44
Bilateral	0	0
Total	50	100

Table 4: Distribution of Fracture Pattern in Patients according to Boyd and Griffin Classification

Type of fracture	Number of Patients	Percentage
TYPE III	32	64
TYPE IV	18	36
Total	50	100

Table 5: Distribution of Patients according to Associated Injury

Associated injury	Number of patients	Percentage
Colles fracture	2	4
Femur fracture	1	2
Pubic rami fracture	1	2
Clavicle fracture	1	2

Table 6: Distribution of Patients according to Associated Co-morbidity

Associated Co- morbidity	Number of patients	Percentage
Hypertension	18	36%
Anaemia	14	28%
Diabetes Mellitus	5	10%
IHD	5	10%
COPD	4	8%
Pulmonary Koch's	2	4%
No disease	2	4%
Total	50	100

DISCUSSION

In our study, most of the patients were between 60-70 years of age. The average age of study group was 70.9 years. The patients in present study were relatively younger as compared to study by Bostrom *et al*⁶. Most of the patients (64%) in the present study were males. This is in contrast to the fact proposed by many authors that

hip fracture is common in females. Kesemenli C *et al*⁷ in 2001 studied 27 patients with average age of 78 years. Amongst them 14 (51%) patients were females and 13 (49%) patients were males. Kayali C *et al*⁸ in 2006 studied 42 patients with mean age of 73 years. Amongst them 30 (71.4%) patients were females and 12 (28.57%) patients were males. Associated co-morbid medical problems are concomitant with hip fractures. Acute medical management of such associated co-morbidities has got some implication on survival of the patient. In present series, systemic hypertension was commonest ailment found in 36% of cases. Other co-morbidities noted in our study were Anaemia in 24% of patients, Diabetes Mellitus in 10% of patients, Ischemic Heart Disease in 10% of patients, COPD in 8% of patients and Pulmonary Koch's in 4% of patients. It is essential to stabilize their associated medical problems at earliest, as they cause delay in surgical procedure and increase the hospital stay. Kayali C *et al*⁸ in 2006 studied unstable Intertrochanteric fracture in 87 patients. Hypertension was the most common associated co-morbidity found in their study. The present study describes the clinical profile of unstable Intertrochanteric fracture femur in elderly at our tertiary care hospital. Further research needs to be done to further understand the subject which may help in better prevention and management of this geriatric problem.

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