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Research Article

**HIP SURGERY FUNCTIONAL AND PHYSICAL OUTCOME IN  
ELDERLY PATIENTS**<sup>1</sup>Dr. Bushra Mehreen, <sup>2</sup>Dr. Waqas Yasin, <sup>3</sup>Dr. Arjumand Shaheen<sup>1</sup>Shareef Medical City<sup>2</sup>Shalamar Medical and Dental College<sup>3</sup>Shalamar Medical and Dental College**Abstract:**

**Objective:** To determine the functional and physical outcome in patients who are above 50 years or older who were treated surgically for hip replacement.

**Study Design:** An observational study.

**Place and Duration:** In the Orthopedic Department, Unit I of Services hospital, Lahore for one year duration from September 2016 to September 2017.

**Methods:** We recorded all patients with proximal femur fracture in the orthopedic section. The inclusion criteria for patient selection were 52 years of both sexes. Patients with isolated trochanteric fractures, suspected pathology fractures and other associated lesions were selected for study. Preoperative and postoperative locomotion capacities of the patients were evaluated. Statistical analysis was performed by a test, double t-test and chi-square test.

**Results:** 57 patients; males were 37 (64.02%) and females were 22 (37.01%). Patients' functional capacity did not return to levels before fracture. There was a major difference between the functional and physical capacity of the smallest age group and above 50 years of age patients.

**Conclusion:** Proximal femur fracture is a serious type of orthopedic injury in an elderly population. The skeletal trauma circumference is very complex and not possible to manage. The treatment of this injury may fall into the fields of rehabilitation, medicine, social systems, psychiatry, medical economics and some idiopathic.

**Key Words:** Proximal hip fracture, Elderly patients, Post-operative functional outcome.

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**INTRODUCTION:**

The hip fracture incidence increases due to the aging of the population. It is suggested that the annual global hip fractures frequency will raise from 1.8 million in 1991 to 6.4 million in 2050. The majority of hip fractures cause an increase in mortality and morbidity, often leading to costly hospitalizations and long procedures. Rehabilitation Most patients cannot achieve pre-fracture life and functional recovery. Our approach was proximal femur fracture in the elderly population. Proximal femur fracture is the most common and potentially destructive injuries in the elderly population, with significant morbidity and mortality. This study was carried out to evaluate the ambulatory capacity and functional results in elderly patients who underwent proximal femur fracture and underwent surgery.

**MATERIALS AND METHODS:**

We recorded all patients with proximal femur fracture admitted in the orthopedic department Unit I of Services hospital, Lahore for one year duration from September 2016 to September 2017. The inclusion criteria for patient selection were 52 of both sexes. Patients with isolated trochanteric fractures, suspected pathologic fractures, and other associated lesions were the patients with anterior ipsilateral or contra lateral proximal femur fracture. After the patient selection, the computer-generated page at the time of admission (Appendix-1). The leaf of the Annex consists of two parts. Part A of the questionnaire includes patient data such as age, gender, occupation, residence, contact number and any addiction history. Part B of the questionnaire

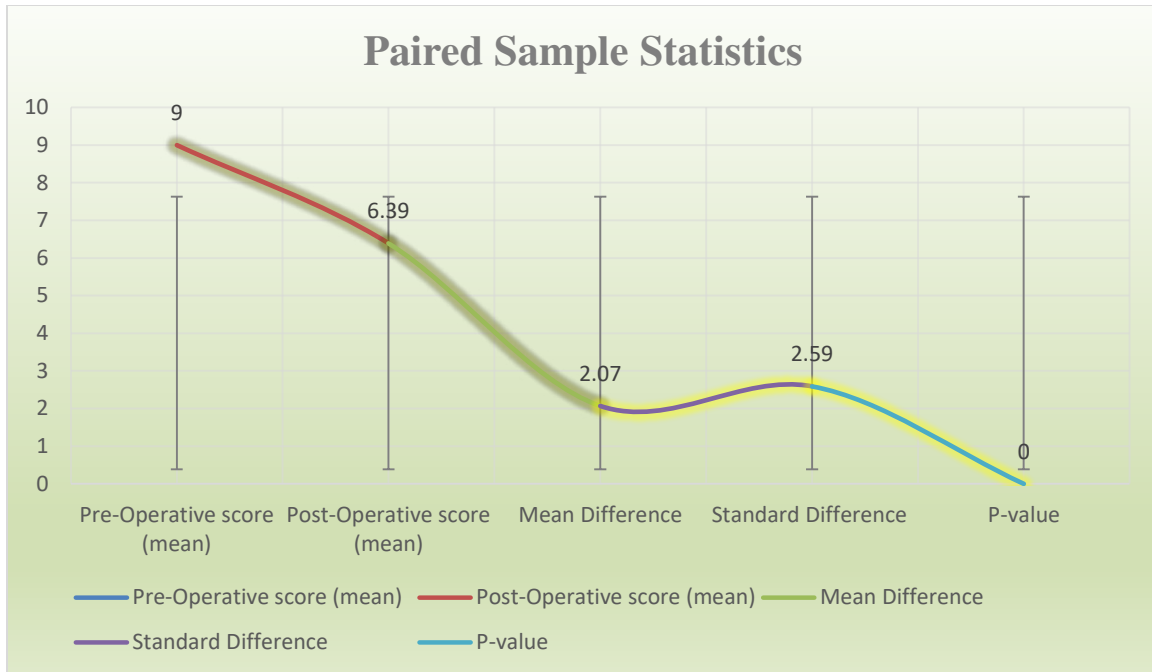
includes the type of fracture, fracture side, date of injury, type of injury, date of surgery, treatment, internal fixation or prosthesis replacement and pre-fracture lifestyle. (alone or with someone). The operation was evaluated according to the American Society of Anesthesiologists (ASA). Preoperative and postoperative locomotion capacities of patients were evaluated and Parker and Palmer's mobility scores were recorded. Functional capacity was studied with patients who could walk inside the house, leave the house, go shopping, go to the restaurant, visit the family. These tasks were evaluated using a four-stage level: level 1 = independent management, level 2 = management with a single aid device, level 3 = management with the help of another person and level 4 = all3 not processed. The patient's functional capacity and residence place were examined preoperatively and were analyzed for 2 weeks, six weeks, six months and one year postoperatively. Statistical analyzes were performed by chi-square test and test, paired t-test .

**RESULTS:**

Eighty patients were implanted for proximal femur fractures. Twenty-five patients out of 82 were not selected for the study and within one year 3 were excluded due to the death from follow-up out of 22 patients. 57 patients; males were 37 (64.02%) and females were 22 (37.02%) females. With intracapsular fractures, 10 patients and with extra capsular fractures 47 patients. Before surgery, 58 patients were mobilized without any device (preoperative score 9), but the next mobility score was 7.03 after one year later, as shown in table 1.

**Table No 1: Pre-Operative and Post-Operative Status. Paired Sample Statistics**

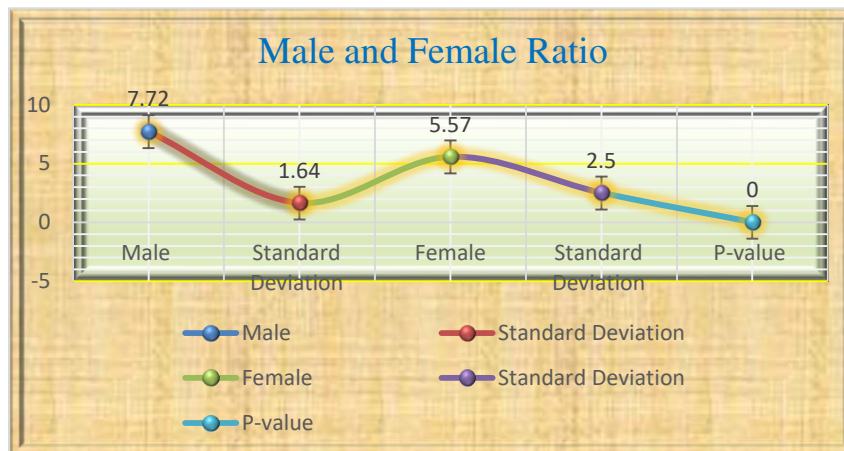
Pre-Operative score (mean)	Post-Operative score (mean)	Mean Difference	Standard Difference	P-value	95% condidenceinterval of the Difference
9.00	6.39	2.07	2.259	0.00	1.4-2.6



Before the fracture no patients were confined to bed. Patients' functional capacity did not return to levels before fracture. The total functional capacity of the surviving patients was 6.9 (a significant p value of 0.00), as shown in Table 2. This is 9 as shown in Table 2. There was a static difference between the functional and physical capacity of males. and women. The mean functional capacity of males was 7.72 and females were 5.57, and this difference was significant (P value 0.00). As shown in the table, it shows that women need more help than men. Table two.

**Table No2: Male and Female Ratio**

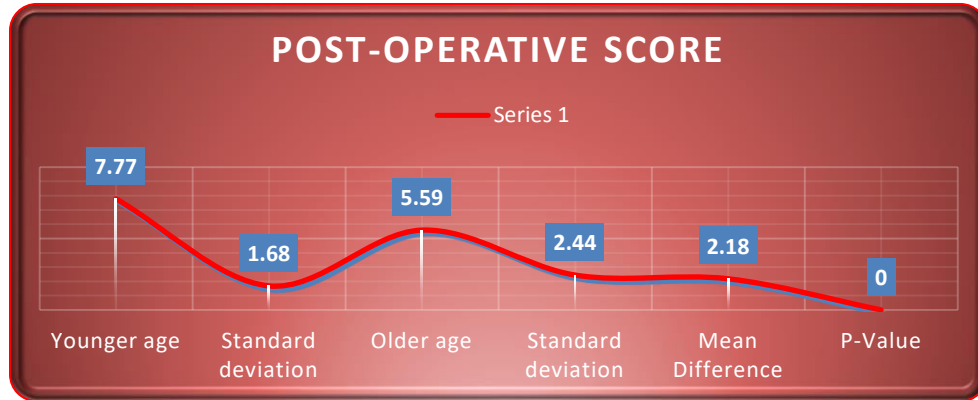
Male (n=36)	Standard Deviation	Female (n=21)	Standard Deviation	P-value	95% confidence interval of the Difference
7.72	1.64	5.57	2.5	0.00	1.03-3.26



Age increase, poor functional recovery, worse walking condition and hip fracture were found to be associated with postoperative complications after surgery. As a result, there was a significant difference between the functional capacity of the smallest age group (age 52-65 years) and the age group (66 years and older) as shown in the table. no. 3.

**Table No 3: Post-Operative score between younger and older age group**

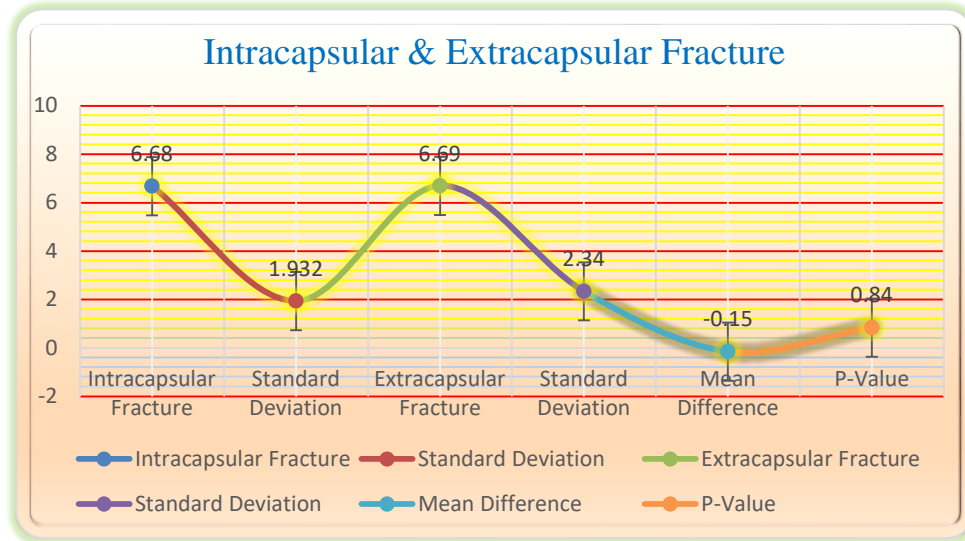
Younger age	Standard deviation	Older age	Standard deviation	Mean Difference	P-Value	95% confidence interval of the Difference
7.77	1.68	5.59	2.44	2.18	0.00	1.08-3.2



In our study, no static variation was found in terms of functional outcome in which intracapsular and extra-capsular fractures may be due to small sample size shown in table 4.

**Table No 4: Intracapsular & Extracapsular Fracture**

Intracapsular Fracture	Standard Deviation	Extracapsular Fracture	Standard Deviation	Mean Difference	P-Value	95% confidence interval of the Difference
6.8	1.932	6.9	2.340	-0.15	0.84	-1.74-1.433



**DISCUSSION:**

Problems due to proximal femur fracture are a type of devastating injury to their significant types of morbidity and mortality. The prevalence of co-morbid medical and surgical conditions commonly seen in this geriatric population leads to the persistence of patients. A multidisciplinary approach to these fractures is justified and Major hip fracture

type and management. (Orthopedic equipment). Pre-operative optimization (drug and anesthesia). Postoperative rehabilitation (treatment). Post-operative social network. (Family and others). If an expected functional result is expected, each of the members should play an aggressive role. Many factors affect healing after hip fracture: fracture prior functional health, good member of muscle strength

type of surgery, type of fracture, surgical complication, self-efficacy beliefs, mental state including depressive symptoms, drug amount, hip pain, incontinence and chronic diseases. The main purpose of this multidisciplinary treatment is to regain the patients functional capacity to the condition they had before they were broken. After hip fracture mortality rate is high within one year. In previous Finnish studies, this ratio ranges from 19% to 29%. The lowest mortality rate was 6.2%. Cedar and colleagues reported the next low mortality rate as 12%. The highest mortality rate was reported by Beals as 50%. In this study, 28.8% of patients died within one year. Background variables vary from age, gender, and health status of the patient, walking ability, daily life activity, care because different studies from different countries, especially the death rates are difficult to compare postoperative and postoperative rehabilitation. Hip fracture is usually linked with a high death ratio in women than men. However, there were no static variation in this study. Many studies have found that recovery after hip fracture is usually completed within 6 months<sup>12</sup>. In a study we did a year later, the functional results of our patients were generally poor compared to the pre-fracture condition. None of the patients returned to the levels before the fracture. Age progression is associated with high mortality after hip fracture. In this study, the excess age group is associated with higher mortality rate and decreased functional capacity. In the Barnes study, male and female participants had a high 7: 1 ratio, and in other studies, a ratio between 2.4 and 4.0 to 1.0 was reported in favor of women. The reason why women suffer more hip fractures than men is that they have a higher rate of osteoporosis. In our study there was a significant difference between men and women, but there are significant differences between men and women, functional abilities of men and women who need more help than men in rehabilitation, as seen in Table 1.

### CONCLUSION:

Proximal femur fracture is a serious type of orthopedic injury in an elderly population. The skeletal trauma circumference is very complex and not possible to manage. The management of this injury may fall into the fields of rehabilitation, medicine, social systems, psychiatry, medical economics and some idiopathic factors. It is important to understand the injury nature, the possible effect on the patient's level of functioning, and the secondary effect on the patient's relatives. The main purpose of the application is to return the patient to his / her level before being injured. For most patients, this goal is best accomplished with surgical treatment, followed by early mobilization.

However, a satisfactory result depends on something much more than fracture surgery. The physician should recognize complex problems with the geriatric population and develop treatment plans that address all factors that may affect the outcome. A new and better treatment for osteoporosis may lead to a reduction in the incidence of hip fractures in the future. For now, however, we must address the epidemic of hip fractures on an individual and collective level.

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