Research Paper Medical Science

Management of Proximal Humerus Fractures -A Clinical Study of 60 Patients

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ABSTRACT

Most proximal humeral fractures are stable injuries of the ageing population, and can be successfully treated non-operatively. Patients with displaced, unstable proximal humeral fractures may have improved outcomes if managed operatively. Various types of fixation, including plates, nails, or percutaneous pins are available, can maintain sufficient stability to promote shoulder mobility and function. The following is a prospective study of 60 patients of proximal humerus fractures that have been managed by both operative and non operative means and the results compared in terms of functional outcome and union.

KEYWORDS Humerus fractures,osteoporosis,phillos,neck humerus,Neer.

1. Introduction

Proximal humeral fractures account for 4% to 5% of all fractures in adults, with an incidence of 6.6/1000 person years. In patients aged older than 65, they represent the third most common fracture, after hip and distal radius fractures.Proximal humeral fractures are increasing in incidence as the population ages.Historically, up to 80% of proximal humeral fractures have been considered appropriate for nonoperative treatment.

2. Materials and Methods

This study was carried out in 60 patients of proximal humerus fractures managed by non operative and operative means and results are compared using NEER score.

METHOD OF COLLECTION OF DATA

Inclusion criteria:

1. Patients with fractures of proximal humerus.
2. Patients in age group of 15- 70 of either sex
3. Patients who are fit for surgery

Exclusion criteria:

1.Open fractures with gross contamination.
2.Undisplaced fracture humerus.
3.Patients presenting after 4 weeks of injury.
4.Patients not giving written consent for surgery.

Cases were selected by diagnosis on history, clinical examination, x-rays and routine investigations. Specific mention about the presence or absence of vascular or neurological deficits,open or closed injury, associated spine or extremity injuries were made. Performa specially made for this study was used. Clinical diagnosis was confirmed by Antero-Posterior, Lateral.Special views were taken only when the interpretation of these routine x-rays were difficult.

3. Observation and Results

A total of 60 paients were included in the study out of which 10 were managed conservatively and 50 were managed surgically,10 by closed methods,30 by ORIF and 10 by hemiarthroplasty.

Age Distribution (Range: 15 yrs to 60 yrs)

AGE	
0-20	10
21-40	10
41-70	40
TOTAL	**60**

SEX DISTRIBUTION

SEX	
MALE	25
FEMALE	35
TOTAL	60

MODE OF INJURY

MODE OF INJURY	
RTA	10
FALL DOWN	42
OTHER	8
TOTAL	**60**

OPEN OR CLOSED FRACTURE

OPEN/CLOSED	
OPEN	5
CLOSED	55
TOTAL	**60**

SIDE INCIDENCE

DEXTERITY	No Of Patients
Unilateral	58
Right	30
Left	28
Bilateral	2

RESULTS AND OUTCOME

Grade	CONSERVATIVE	CLOSED	ORIF	HEMI ARTHROPLASTY
Excellent	2	5	22	4
Good	5	2	4	2
Fair	2	2	2	1
Poor	1	1	2	3
TOTAL	10	10	30	10

4.Discussion

Proximal humerus fractures occur more commonly in older age group55. This is due senile osteoporosis.

The majority of fractures of the proximal humerus are stable injuries in the elderly and can be successfully treated non-operatively. The challenge for the future is to select those patients who are going to be at increased risk of developing complications or a poor functional result after non-operative treatment This higher ratio can be explained by a higher involvement of male in day to day activities in.

Motor vehicle accidents constitute a major cause of musculoskeletal trauma worldwide. In our country too, it happens to be very common and is reflected in our study second most common cause after the domestic fall.

Different studies, which have used the Neer's scoring system for assessment of results, demonstrate a fairly similar pattern of results with 70 - 80% patients having satisfactory to excellent results and 20 - 30%having un-satisfactory to failure results.

Our poor results have shown strong association with, 1-Open injuries, which developed infection. 2-Three, four parts severely displaced fracture in which articular head is devoid of soft tissue attachment which is unstable. 3-Avascular necrosis of humeral head.Results were consistently better in closed, less displaced two and three part fracture pattern compare to female.Anatomical reconstruction should be aimed in all patients with stable mechanical fixation The options as to the management modality used depend on the pattern of the fracture, the quality of the bone encountered, the patient's goals and the surgeon's familiarity with the techniques.Principle of fixation is reconstruction of the articular surface, including the restoration of the anatomy, stable fixation, with minimal injury to the soft tissues preserving the vascular supply, should be applied. Biologically the technique of closed reduction and percutaneous pinning is good from the standpoint of retaining the vascularity of the humeral head.

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