



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية  
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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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٤٩٧٨

# EVALUATION OF THE RESULTS OF CONDYLAR BUTTRESS PLATING IN THE MANAGEMENT OF DISTAL FEMORAL FRACTURES

## Thesis

*Submitted for Partial fulfillment of Master Degree in*  
**Orthopaedic Surgery**

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# CONTENTS

	Page
INTRODUCTION .....	1
AIM OF THE WORK .....	3
REVIEW OF LITERATURE	
• <i>Anatomy</i> .....	3
• <i>Biomechanics</i> .....	16
• <i>Classification</i> .....	21
• <i>Treatment</i> .....	29
• <i>Complications</i> .....	51
MATERIALS AND METHODS .....	61
RESULTS .....	73
DISCUSSION .....	112
SUMMARY AND CONCLUSIONS .....	122
REFERENCES .....	125
ARABIC SUMMARY	



**INTRODUCTION**

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## INTRODUCTION

A supra-condylar fracture of the femur is defined as a fracture involving the zone between the femoral condyles and the junction of the metaphysis with the femoral shaft. <sup>(1,2)</sup>

It's also defined as a fracture that occurs in the area that lies between a line passing through the joint space and another line parallels the former one and at a distance equal to the width of the condyles of the femur. <sup>(3)</sup>

There are two peak incidences one in the young men after severe trauma mostly traffic accident and one in the elderly women after moderate trauma usually the bone is osteoporotic. <sup>(4)</sup>

Supra condylar – inter-condylar fractures of the femur remain difficult fractures to treat successfully, as they are often comminuted, unstable and associated with severe soft tissue damage and injury to quadriceps mechanism. <sup>(4-6)</sup>

Considerable controversy exists as to whether conservative or operative treatment leads to the best results, common treatment problems comprise restoration of the distal articular joint surface, avoidance of the subsequent stiffness of the knee joint due to the fibrosis in the suprapatellar region. <sup>(7)</sup>

Historically, the majority of supracondylar fractures were treated non operatively where traction achieved acceptable results but exposed the patient to the risks of prolonged bed rest, in addition to persistent angulatory deformity, knee joint incongruity and loss of the knee motion.

Operative methods were not recommended as complications including malunion, non union, implant failure and infection were common.<sup>(8-10)</sup>

With the development of improved internal fixation devices by A.O. group, treatment recommendation changed. Operative treatment is now recommended for most fractures of distal femur with exception of simple non displaced fractures.

The goals of operative treatment are anatomical alignment, stable fixation, rapid mobilization and early functional rehabilitation of the knee.<sup>(2,6)</sup>

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# AIM OF THE WORK

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## AIM OF THE WORK

**T**he aim of this work is to evaluate the results of the treatment of supra condylar and or intercondylar fractures of the femur by condylar buttress plate.

REVIEW OF LITERATURE





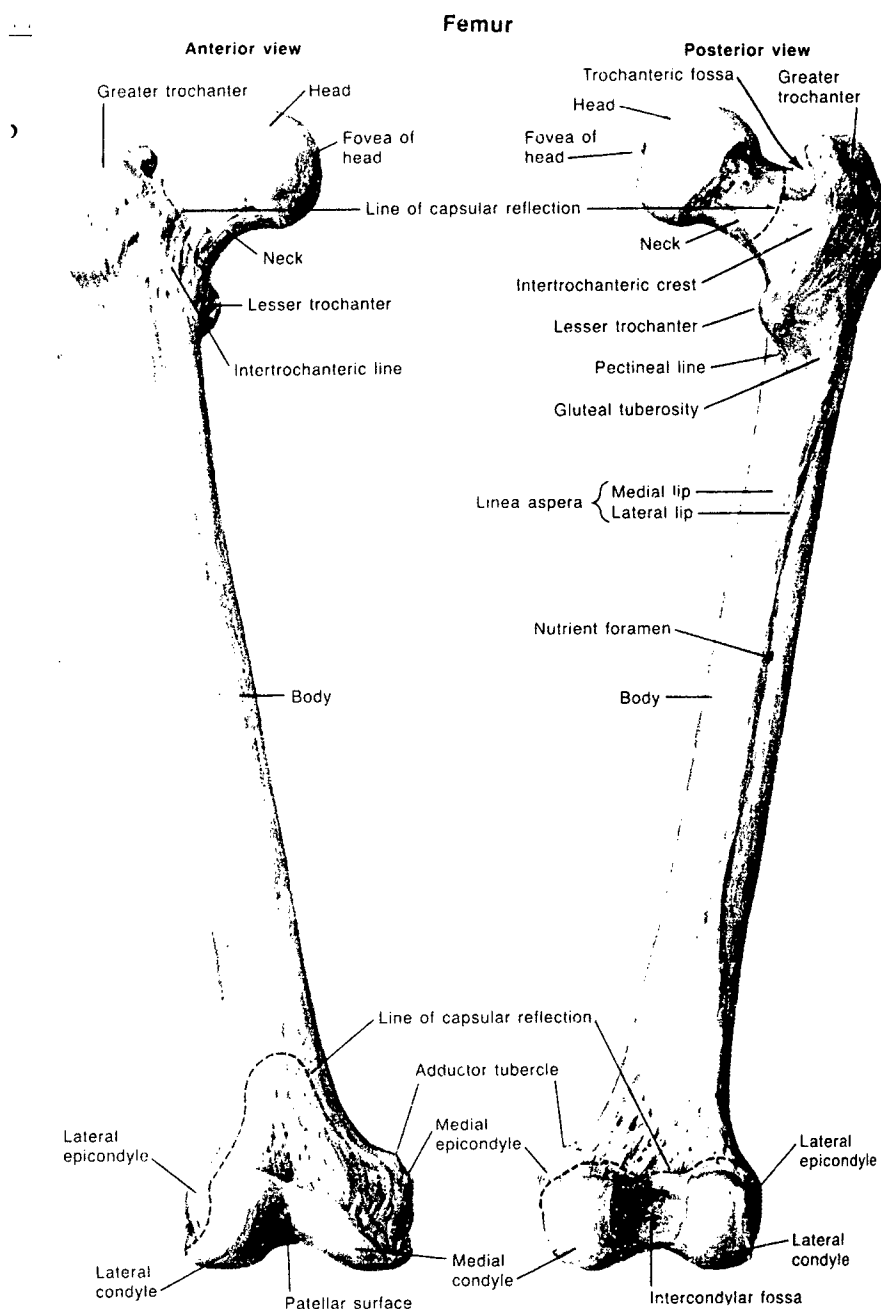
## ANATOMY

The distal end of the femur is that part of the femur below a line which parallels the joint space of the knee at a distance equal to the width of the condyles. This line roughly coincides with the upper end of the suprapatellar pouch. This part of the femur includes the femoral condyles and extends proximally to the junction of the metaphysis with the shaft.<sup>(11)</sup>

The lower end of the femur is widely expanded and this provides a good weight-bearing, surface. The medial and lateral femoral condyles are united anteriorly. Posteriorly they are separated by the intercondylar fossa.<sup>(12)</sup> (**Fig.1 a,b**).

The femoral condyles are asymmetric in shape and dimensions, with the larger medial condyle having a more symmetric curvature (**Fig.2**). The lateral condyle viewed from the side has a sharply increasing curvature posteriorly<sup>(12)</sup>, it's slightly shorter than the medial when viewed from the surface articulating with the tibia (**Fig. 1a**). The long axis of the lateral condyle is slightly longer than the long axis of the medial condyle and is placed in a more sagittal plane while the medial is placed at an angle of about 22 degree (**Fig. 3**) The width of the lateral condyle is slightly greater than that of the medial condyle at the center of the intercondylar notch.<sup>(13)</sup>





(a) Anterior view of the femur

(b) Posterior view of the femur

**Fig. (1): Anatomy of the femur <sup>(12)</sup>**