

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

بسم الله الرحمن الرحيم





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جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

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Comparative Study between Surgical Excision of Radial Head Fracture versus Arthroplasty, A Systematic Review of Literature

A systematic review
Submitted for Partial Fulfillment of Master Degree
In Orthopaedic Surgery

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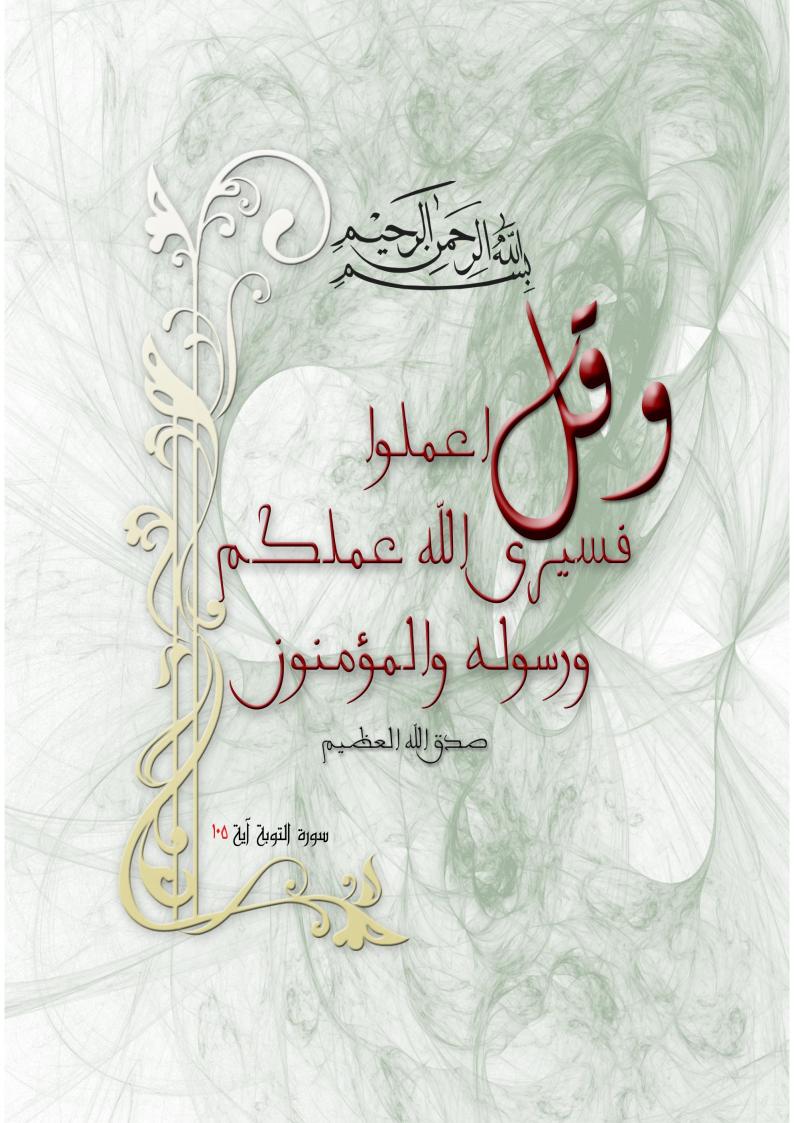
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List of Abbreviations

| ALCL | Accessory lateral collateral ligament | | |
|------|---|--|--|
| LCL | Lateral collateral ligament | | |
| LUCL | Lateral ulnar collateral ligament | | |
| MCL | The medial collateral ligament | | |
| MeSH | Medical subject headings | | |
| DRUJ | Distal radio-ulnar joint | | |
| DASH | Disability of Arm, Shoulder, Hand score | | |
| VAS | Visual analog scale | | |
| MEPS | Mayo Elbow performance score | | |
| ROM | Range of motion | | |

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Introduction

Radial head fracture is the most frequently diagnosed fracture of the elbow in adults ⁽¹⁾. The radial head is a secondary valgus stabilizer of the joint and it is involved in transmission of axial force load through the elbow during flexion. It is also a varus and external rotatory constraint ⁽²⁾.

Primary goal in surgical treatment is to restore elbow stability in order to preserve the complex physiologic elbow kinematics ⁽³⁾.

These types of fractures are often associated with multiple ligamentous injuries amounting to elbow instability. Radial head resection has been proposed as good option for surgical treatment, while in the last decades, the development of technology and design in radial head prosthesis has increased efficacy in prosthetic replacement ⁽⁴⁾.

Many authors have described serious complications in case of resection of the radial head such as proximal migration of radius and longitudinal instability, humeroulnar osteoarthritis, decrease in grip strength, cubitus valgus, and ulnar neuropathy ⁽⁵⁾.

Therefore, radial head arthroplasty has obtained a large consensus in orthopedic surgeries as primary option of treatment in fractures Mason types III and IV. It allows an anatomical reconstruction and it maintains stability and physiologic kinematics of the elbow if associated with ligament reconstruction. However, oversizing or overstuffing of radial head prosthesis and malpositioning may lead to a high rate of complications and failure of this surgical procedure ⁽⁶⁾.

Introduction