



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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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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2021

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَقُلْ اعْمَلُوا فَسِيرَى اللَّهِ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ

صدق الله العظيم

سورة التوبة آية ١٠٥

Acknowledgment

*Thanks first and last to **ALLAH**, the real support and the guidance in every step in our life.*

*I am grateful and would like to thank and to express my deepest gratitude to **Prof. Dr. Wael Samir Abdel Megied**, Professor of Orthopaedic Surgery, Faculty of Medicine, Ain Shams University, for his continuous supervision. He gave me much of his time and effort. His guidance was the cornerstone in the building up of this work.*

*My true appreciation to **Dr. Ahmed Mohamed Khaled**, Lecturer of Orthopaedic Surgery, Faculty of Medicine, Ain Shams University, for his kind guidance, valuable instructions, and his sincere efforts. I owe him much for his help, support and his simplicity in handling matters.*

Special thanks to all patients on whom and for whom this work has been done and without them it was never going to appear.

*No words can describe the support and the encouragement of **my lovely family**.*

✍ Waleed Mahrous Ibrahim Rehan

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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⁾.

