CODE: ABS 041

EARLY AND INTEGRATED REHABILITATIVE MEASURES FOR A STIFF ELBOW OF A DOMINANT UPPER LIMB SECONDARY TO MYOSITIS OSSIFICANS: A CASE STUDY REPORT.

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Background: Myositis ossificans and elbow stiffness are common complications following radial head fractures, particularly due to a fall on an outstretched hand (FOOSH) injury involving the proximal elbow. These complications can significantly impair the functional capacity of the dominant upper limb, affecting activities of daily living (ADLs). Multiple factors, including pain, reduced ROM, soft tissue restrictions, psychological distress, and prolonged recovery time, contribute to functional limitations. Early and well-structured rehabilitation plays a crucial role in restoring function and preventing long-term disability.

Purpose: To evaluate the effectiveness of early and integrated rehabilitative measures in improving functional outcomes in a patient with a stiff elbow secondary to myositis ossificans following a radial head fracture.

Methods and Materials: This case study involved a 35-year-old female patient who presented with complaints of difficulty in elbow flexion and impaired ADLs following surgical management of a comminuted, closed, displaced radial head fracture with associated myositis ossificans and neurovascular deficit of the right elbow. Clinical assessment revealed pain during movement, scar tightness at the surgical site, restricted ROM in the elbow, wrist, and fingers, joint stiffness, deformity, numbness in the fingers, and reduced hand grip strength. Based on the identified impairments, a comprehensive and individualized 4-week integrated rehabilitation protocol was implemented. Outcome measures included range of motion, Disabilities of the Arm, Shoulder and Hand (DASH) score, Mayo Elbow Performance Score (MEPS), and psychological status.

Results: Post-intervention assessment demonstrated significant improvements in joint mobility, pain reduction, hand grip strength, and functional performance. Notable enhancement was observed in DASH and MEPS scores, along with improved psychological well-being and independence in ADLs.

Conclusion: This study highlights the importance of early, customized, and integrated rehabilitation in managing stiff elbow conditions secondary to myositis ossificans. Tailored interventions addressing pain, mobility, and functional limitations can significantly enhance recovery and optimize patient outcomes.

Keywords: Myositis ossificans, DASH score, ROM, Mayo Elbow Performance Score, Rehabilitation.