

Abstract in English

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Title: Case Study of Physiotherapeutic Treatment of a Patient after the Surgical Intervention for Closed Proximal Humerus Fracture

Objective: Physiotherapeutic approach for the patient after a traumatic proximal humerus fracture, followed by a surgical intervention (ORIF method). The practical aim of this thesis is to collect medical history and provide physical examination and treatment of patients after chronic proximal humerus fracture. The theoretical aim of this thesis is to investigate every aspect of proximal humeral fractures- their anatomy, kinesiology, incidence, clinical picture, and treatment options using evidence-based medical books, articles, and journals.

Methods: The unique physiotherapeutic approach used in this case study involved a comprehensive first session that included collecting anamnesis and gathering an initial kinesiological examination of the patient. This was done using techniques of Czech and international doctors and physiotherapists, including specific examinations such as ROM examination acc. to the American Medical Association, muscle length test acc. to Janda and Kendall muscle strength test acc. to Kendall, basic movement pattern acc. to Janda, joint play and soft tissue acc. to Lewit, basic neurological examination acc. to Kolar and other nonspecific psychotherapeutic examinations. The total of eight therapeutic sessions, each lasting an hour long, included the methods and approaches of Czech and international doctors and physiotherapists. Following therapeutic methods included DNS acc. to Kolar, PNF acc. to Kabat, STT and PIR acc. to Lewit, PIR with stretching acc. to Janda and other nonspecific psychotherapeutic approaches. The last session included a complete kinesiological examination for comparison.

Results: After eight sessions of hour-long physiotherapy in four weeks, there was no drastic improvement in the patient's condition compared to the initial examination. The effect of the therapy got rid of shortened and hypertonic muscles, joint blockages, and improved functional use of the left upper extremity in ADLs. The patient also became more confident whilst driving (turning the wheel). The main goal was to restore the maximum possible active range of motion and muscle strength. However, achieving this after eight sessions was impossible due to the chronicity of the fracture, pain, and structural changes of soft tissues (scar, in particular) and the bone.

Conclusion: Although the desired effect was not fully achieved, the patient is fully independent, with only minor difficulties present during his ADL, such as cooking. Since the non-dominant limb was affected and the fracture was chronic (almost two years had gone at that moment), it was hard to achieve the main aim of the therapy, which is maximal active ROM and muscle strength test. However, improvements were still observed in terms of soft tissue and joint play. After our sessions, the patient is referred to an intensive month-long rehabilitation in the spa centre, where he will continue to work for his primary goal.

Keywords: Traumatology, fractures, proximal humerus fracture, shoulder girdle, surgical intervention, rehabilitation, physiotherapy, physical therapy.