

Case Study: Rheumatoid Arthritis in a 67-Year-Old Female - Physical Therapy and Treatment Management.

Faris Bani Yasin, D¹, Fuad Abdulla², Mohamed Ali Elsayed³, Atef Mohamed Doweir⁴

¹Assistant Professor, Department of Physical Therapy, Philadelphia University, Amman, Jordan

²Professor, Department of Physical Therapy, Philadelphia University, Amman, Jordan,

³Assistant professor of physical therapy for pediatrics (Faculty of Allied Medical Science of Philadelphia University). Jordan

⁴Assistance Professor, Department of Physical Therapy, Philadelphia University, Amman, Jordan

*Corresponding author: , E-mail:

KEYWORDS

ABSTRACT

This case study explores the management of rheumatoid arthritis (RA) in a 67-year-old female patient using a combination of pharmacological treatment and physical therapy. After ten sessions of mobilization therapy, the patient showed significant improvements in pain reduction and range of motion. The study aims to demonstrate the synergistic effects of a multidisciplinary approach in RA treatment and management.

Introduction

- **Background:** Rheumatoid arthritis (RA) is a chronic, inflammatory autoimmune disease that primarily affects synovial joints, leading to pain, swelling, and progressive joint destruction.
- **Objective:** To examine the effectiveness of combining pharmacological treatment with physical therapy in improving the symptoms and quality of life for a patient with advanced RA.

Patient Information

- **Age:** 67 years old
- **Gender:** Female
- **Medical History:** The patient has a 10-year history of rheumatoid arthritis, with previous treatments including methotrexate and NSAIDs for flare-up management.
- **Presenting Symptoms:** Increased joint pain, stiffness in hands, wrists, and knees, morning stiffness lasting more than an hour, and difficulties with daily activities.
- **Lifestyle Factors:** Non-smoker, moderate physical activity, and balanced diet.

Clinical Findings

- **Physical Examination:**
Significant swelling and tenderness in the metacarpophalangeal joints and wrists.
Limited range of motion in both the wrists and knees.
Reported pain level of 7/10 on the Visual Analog Scale (VAS).
- **Laboratory Results:**
Elevated rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) antibody levels.
Elevated C-reactive protein (CRP) indicating active inflammation.
- **Imaging:**
X-rays indicated joint erosion and decreased joint space in affected areas.
MRI confirmed the presence of synovitis.

Treatment Plan

A. Pharmacological Treatment

- **Methotrexate:** Prescribed at a weekly dosage of 15 mg, with folic acid supplements to minimize side effects.
- **Biologic Therapy:** Addition of a TNF-inhibitor (adalimumab) administered via subcutaneous injection every two weeks.
- **NSAIDs (Ibuprofen 400 mg as needed):** For managing acute pain and inflammation.
- **Low-dose Corticosteroids (Prednisone 5 mg/day):** To quickly reduce inflammation and manage severe symptoms.

B. Physical Therapy Intervention

- **Treatment Focus:**

The patient underwent ten sessions of targeted physical therapy emphasizing joint mobilization, muscle strengthening, and pain relief.

- **Therapeutic Techniques:**

- **Joint Mobilization:** Low-grade techniques to improve joint flexibility, reduce pain, and enhance synovial fluid movement.
- **Active and Passive Range of Motion Exercises:** Focused on increasing joint flexibility, particularly in the wrists and knees.
- **Strengthening Exercises:** Resistance training for the upper and lower limbs to support joint stability and muscle endurance.
- **Hydrotherapy Sessions:** Implemented to reduce pain through water-based exercises that provide gentle resistance.
- **Home Exercise Program:** Daily light stretching and muscle-strengthening exercises to be continued at home for long-term mobility maintenance.

Outcome and Follow-Up

- **Short-term Outcome:**

Pain levels reduced significantly from 7/10 to 3/10 after completing the ten physical therapy sessions. Notable improvement in joint flexibility and range of motion, particularly in the knees and hands.

- **Long-term Outcome:**

At the six-month follow-up, the patient reported sustained symptom control and improved quality of life.

Regular monitoring showed continued remission with no significant side effects from the biologic therapy.

The patient successfully integrated her home exercise routine into daily life, which contributed to the maintenance of mobility and strength.

Discussion

This case demonstrates the importance of a multidisciplinary approach in managing rheumatoid arthritis. Combining pharmacological interventions with physical therapy resulted in substantial improvements in pain

levels, joint mobility, and overall function.

The addition of biologic therapy played a critical role in reducing systemic inflammation, while physical therapy focused on functional improvements and maintaining independence.

The outcome of this case supports the current evidence that physical therapy is a crucial non-pharmacological approach that can significantly enhance the benefits of standard RA medications.

Conclusion

The combination of methotrexate, biologic therapy, and a structured physical therapy program resulted in improved clinical outcomes in this patient with rheumatoid arthritis.

Early and continuous physical therapy, coupled with pharmacological treatment, is essential to managing symptoms, slowing disease progression, and enhancing quality of life.

Further research should explore the long-term benefits of integrating these approaches in RA management protocols.

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