

## **Abstract**

**Title:** Case study of physiotherapy treatment of a patient after total knee replacement surgery.

**Thesis aim:** Thesis is divided into two parts, the first part is theoretical and has aim to show an overview of anatomy, kinesiology and biomechanics of the knee joint and to show general information about the osteoarthritis and the patient's surgery. The second part is the case study where aim is to show the examinations and treatments that were provided to the patient and analyse the results.

**Clinical findings:** The patient was a 71 years old male with diagnosis of total knee replacement surgery, performed 7 days ago from the time we met. The patient had limited ROM in the operated leg into flexion and extension and the area around the knee was swollen and warm. Also, he had some weakness on the muscles of the operated leg.

**Procedures:** All the procedures that used were based on my knowledge acquired from Charles University in Prague, Faculty of Physical Education and Sport. These were post isometric relaxation, joint mobilisation, strength and length tests and strengthening exercises based on my knowledge.

**Result:** After 7 days of therapies the patient's operated leg had physiological mobility into flexion and extension, the muscles gained strength and oedema was reduced but not completely.

**Conclusion:** The therapeutic procedures that were used had positive effect on the patient's situation.

**Keywords:** Total knee replacement, knee joint, endoprosthesis, range of motion, muscle weakness, joint play, osteoarthritis.