

Introduction

The tibia, or shinbone, is the most commonly fractured long bone in the body. A tibial shaft fracture occurs along the length of the bone, below the knee and above the ankle. The post-immobilization period in this group of patients includes a complex of physical methods to improve functional status.

Materials and methods

The examination involves a patient at age 11 who receives a fracture after falling from the roller. After the repositioning and removal of immobilization for a period of 7 weeks, physical treatment with 3 weeks duration is included. Cryotherapy, massive intakes, active exercises, analytical exercises for the upper and lower limbs, exercises for improving muscle strength, balancing exercise and coordination of sitting and standing, muscular-inhibitory techniques and mobilization of liaisons are used. Tests for muscle weakness - MMT, centimeters and agglomeration - are used to follow the effect of the therapy.

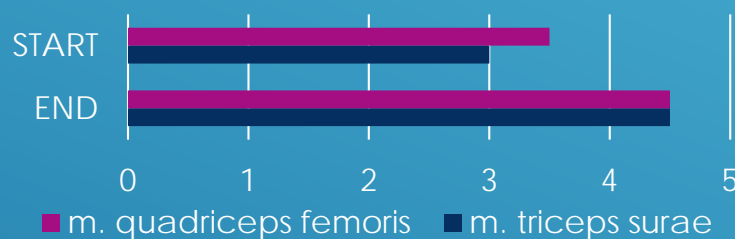


Fig. 2 Graphical representation of changes in manual muscle test

Aim

The aim is to present the complex physical approach in a patient after tibial shaft fracture.

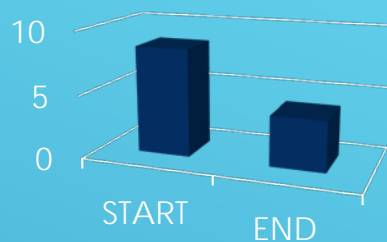


Fig. 1 Graphical representation of changes in subjective pain indicators

Results

When measuring with centimeters and the muscle weakness test, MMT is an improvement in muscle volume and muscle strength due to systematically conducted physiotherapy procedures and exercises for upper and lower extremities. Increasing the volume of knee and ankle movement is due to properly applied joint mobilization techniques.

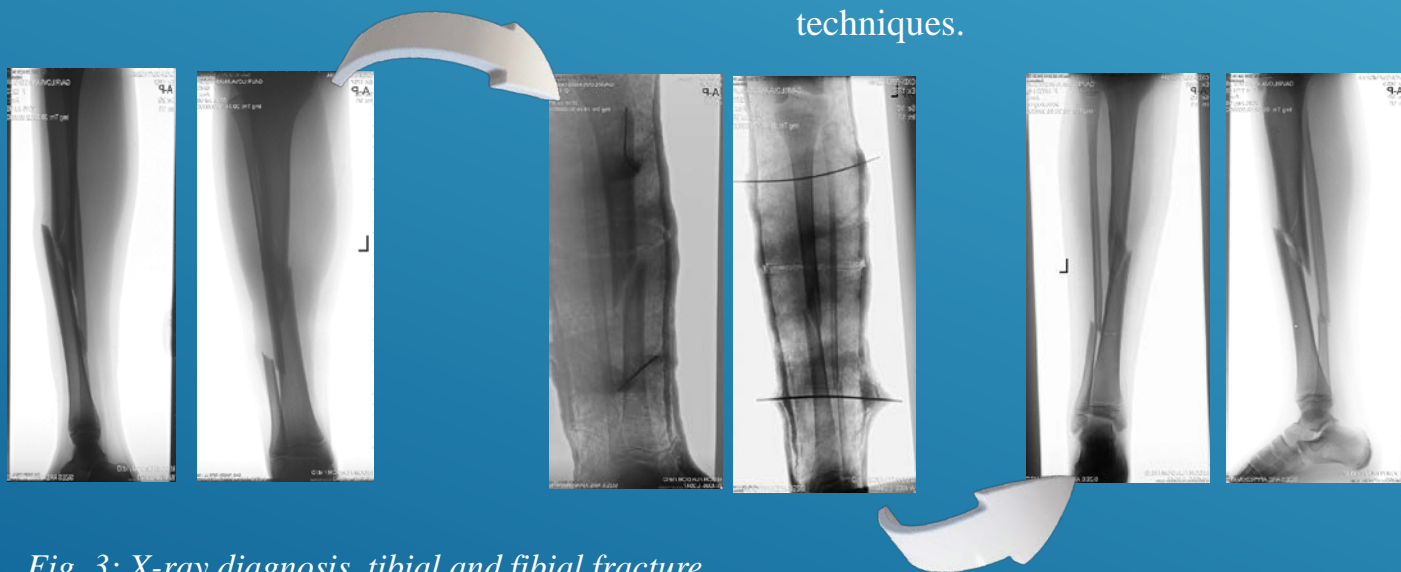


Fig. 3: X-ray diagnosis, tibial and fibial fracture

Fig. 4: close reduction and percutaneous fixation with two K wires in cast above knee

Fig. 5: X-ray after four weeks with removed wires

Conclusion

The complex physical approach and the application of appropriate means in the post-mobilization period leads to positive results and improvement of the investigated functional parameters.