

NAZIV DISERTACIJE: PROCJENA EFEKATA KINEZITERAPIJE FADI INDEKSOM NAKON PRIJELOMA SKOČNOG ZGLOBA**Autor:** Vanda Zovko Omeragić**Mentor:** Prof. dr. Edina Tanović**Datum odbrane:** 25.02.2019.**DOI:** <https://doi.org/10.17532/DD.2019.02>**Sažetak**

Uvod: Prijelomi skočnog zgloba smanjuju kvalitetu života te, osobito kod starijih osoba mogu prouzrokovati gubitak neovisnosti. Hirurško liječenje podrazumijeva namještanje polomljenih dijelova i fiksiranje pomoću različitih naprava, kao što su metalne ploče, vijci, žice ili vanjska fiksacija. Zadatak operativnog liječenja je da se rani funkcionalni postoperativni tretman rehabilitacije, sa naglaskom na kineziterapiji, započne što je prije moguće. Krajnji cilj je osigurati pokret bez bola i time poboljšati pacijentov kvalitet života.

Ciljevi istraživanja: Utvrditi koliko je kineziterapija dovela do oporavka muskulature po MMT (manuelnom mišićnom testu) kod pacijenata sa bimalleolarnim i trimaleolarnim prijelomom skočnog zgloba nakon operativnog tretmana, utvrditi utjecaj kineziterapije na obim pokretljivosti kod pacijenata sa bimalleolarnim i trimaleolarnim prijelomom skočnog zgloba nakon operativnog tretmana, analizirati vrijednosti FADI indeksa nakon kineziterapije kod pacijenata sa bimalleolarnim i trimaleolarnim prijelomom skočnog zgloba nakon operativnog tretmana dobijene vrijednosti MMT (manuelnog mišićnog testa) i obima pokretljivosti nakon rehabilitacije uporediti sa vrijednostima FADI indeksa i na osnovu toga procijeniti njegovu mogućnost primjene u procjeni funkcionalnosti nakon bimalleolarnog i trimaleolarnog prijeloma skočnog zgloba.

Ispitanici i metode: Uzorak obuhvata 60 ispitanika oba spola u dobi iznad 18 godina koji su zbog bimalleolarnog ili trimaleolarnog prijeloma skočnog zgloba imali operativni zahvat u cilju zbrinjavanja prijeloma osteosintezom. Svi ispitanici su bili tretirani kineziterapijom, kao dijelom programa postoperativne rehabilitacije. Kao instrument istraživanja korišten je FADI indeks invalidnosti stopala i skočnog zgloba. Ispitanicima je izmjerena obim pokretljivosti skočnog zgloba i gruba motorna snaga operisanog i zdravog ekstremiteta. Istraživanje je provedeno u periodu od 09.01.2013. do 04.04.2018. godine. na odjelu ortopedije Kantonalne bolnice "Dr. Safet Mujić" u Mostaru i Sveučilišne kliničke bolnice Mostar.

Rezultati: Od ukupnog broja ispitanika najviše je bilo pripadnica ženskog spola (70%). Povećana težina (BMI 25-29,9) zabilježena je kod 50% ispitanika. Od ukupnog broja prijeloma skočnog zgloba bilo je više desnostranih 58,3%, također je bilo više bimalleolarnih prijeloma 56,6%. Nije nađena statistički signifikantna korelacija između vrste prijeloma i izbora bolnice u kojoj se obavlja rana postoperativna rehabilitacija ($p > 0,05$). Nađena je statistički signifikantna korelacija između vrijednosti FADI scora po skupinama i prosječnog procentualnog oporavka po MMT-u ($p < 0,05$), kao i statistički signifikantna korelacija između vrijednosti FADI scora po skupinama i prosječne procentualne vrijednosti ROM-a ($p < 0,05$). Statističkom analizom utvrđeno je da postoji statistički značajna povezanost između prosječnog procentualnog oporavka po ROM-u i MMT-u ($p < 0,05$).

Zaključak: Provedenim istraživanjem potvrđena je radna hipoteza provedene studije. Efekti kineziterapije nakon operativnog zahvata skočnog zgloba mogu se procijeniti FADI indeksom relevantno kao i manuelnim mišićnim testom i mjerenjem obima pokretljivosti.

Ključne riječi: skočni zglob, prijelom, kineziterapija, FADI indeks

DISSERTATION TITLE:**Author:** Vanda Zovko Omeragić**Mentor:** Prof. dr. Edina Tanović**Date of defence:** 25. February 2019**DOI:** <https://doi.org/10.17532/DD.2019.02>**Summary**

Introduction: Angle joint fractures reduce the quality of life and, especially in older people, can lead to loss of independence. Surgical treatment involves the adjustment of broken parts and fixation by various devices, such as metal plates, bolts, wires or external fixation. The task of operative treatment is to commence as early as possible with the early functional postoperative rehabilitation, with the emphasis on kinesitherapy. The ultimate goal is to ensure painless movement and thereby improve the patient's quality of life.

Research goals: To determine how much kinesitherapy led to muscle recovery by MMT (manual muscle test) in patients with bimalleolar and trimalleolar fracture of an ankle joint after operative treatment; determine the influence of kinesitherapy on mobility in patients with bimalleolar and trimalleolar fracture of an ankle joint after operative treatment; analyze the values of the FADI index after kinesitherapy in patients with bimalleolar and trimalleolar fracture of an ankle joint after operative treatment of the obtained MMT (manual muscle test) and mobility rates after rehabilitation compared to the values of the FADI index and to evaluate its possibilities of application in determining functionalities after bimalleolar and trimalleolar fracture of an ankle joint.

Subjects and Methods: The sample covered 60 subjects of both sexes over the age of 18 who had a surgical intervention for osteosynthesis fractures due to bimalleolar or trimalleolar fracture of an ankle joint. All subjects were treated with kinesitherapy, as part of a postoperative rehabilitation program. The FADI Foot and Ankle Disability Index was used as the research instrument. The subjects had their ankle joint mobility rate measured, as well as the raw motor power of the operated and healthy extremities. The research was conducted in the period from 9th January 2013 to 4th April 2018 at the Department of Orthopedics of the Cantonal Hospital "Dr. Safet Mujić" in Mostar and University Clinical Hospital Mostar.

Results: Of the total number of subjects, the highest number were female (70%). Increased weight (BMI 25-29.9) was observed in 50% of subjects. Of the total number of ankle joint fractures, higher number was observed on the right ankle (58.3%), and there were also more bimalleolar fractures (56.6%). No statistically significant correlation was found between the type of fracture and the choice of hospital for early postoperative rehabilitation ($p > 0.05$). A statistically significant correlation was observed between the FADI score per group and the average percentage recovery per MMT ($p < 0.05$), as well as a statistically significant correlation between the FADI score by groups and the average percentage of ROM ($p < 0.05$).

Statistical analysis showed that there was a statistically significant correlation between the average percentage recovery by ROM and MMT ($p < 0.05$).

Conclusion: A working hypothesis of the study was confirmed by the conducted research. The effects of kinesitherapy after a surgical treatment of the ankle joint can be estimated by the FADI index as relevantly as by the manual muscle test and measuring the rate of mobility.

Keywords: ankle joint, fracture, kinesitherapy, FADI index