Abstract

Titel: Analysis of maximal foot pressures according to the kind of the Czech Army soldiar's shoes.

Goals: Aim of a study is determined the differences in distribution and size of plantar pressure acting on sole of the foot between soldiars and tracking boots during walking and slow running.

Method: After a critical review of interraction the foot on kind of used boots was suggested an experiment evaluating the size and distribution of plantar pressures used by Czech soldiers and tracking boots. In group of Czech soldiers was done the measuremnt on treadmill during walking and slow running during standardized speed of movement 5, 8 and 12 km/h. Plantar pressure was measured by insole Novel – PedarX, aplicated in boots.

In movements in soldiers and tracking boots was estimated the absolute and relative deviation in total plantar pressure and local pressure on heel in case studies (n=1) at individuals. From these deviations fined out in case studies was counted the modus and aritmetics averadge to evaluate boots influence on plantar pressures.

Results: As a result of work was prooved, that tracking boots reduce the total amount of plantar pressures approximately by 0,5% compared to soldiers boots durong walking and slow running. But the tracking boots also increase the local pressure on the heel during same movements by 6% compered to soldiars boots. Soldiers boots appeard to be more ergonomic than tested tracking boots.

Key words: plantar pressure, sole of the foot, army boots, tracking boots.