Abstract

Title: Diagnostics of the asymmetries of the deltoid muscles of table tennis players by using tensiomyography.

Objectives: The aim of this bachelor thesis was to define the hypothesis about the impact of table tennis on the musculoskeletal apparatus, to determine muscle dysbalance and select suitable exercises for improvement.

Methods: This is a case study. The research is done qualitatively by mapping a small number of probands. Six selected individuals were measured, the results were analysed and according to this the recommendations were made. The tensiomyograph TMG 100 was used to diagnose muscular asymmetries in the deltoid muscle.

Results: From the measurements of six probands was found that the greatest asymmetry was in the lateral part of the deltoid muscle. Because of the greater flaccidity of a non-playing arm, four probands were recommended to do strengthening exercises and three probands were recommended to do activation exercises on their non- playing arm. At the front of the deltoid muscle, two probands had a shortened muscles on a playing arm and a flapless non-playing arm, so they were recommended to perform strengthening exercises on non-playing arm and stretching exercises on the playing arm. At the back of the deltoid muscle, the players had different results in muscle imbalance, which can be assumed that playing table tennis had no affect on it.

Keywords: table tennis, muscle imbalances, shoulder, TMG