

ABSTRACT

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Title of master thesis: Evaluation of muscle strength and endurance of pregnant women

The aim of this work is to evaluate whether the parameters of muscle strength and endurance on the upper and lower limbs change at different stages of pregnancy. Another goal is to find out whether these parameters are related to the parameters of childbirth.

10 women aged 24 – 36 were chosen for this master thesis and all were first-borns. Each woman was examined three times during pregnancy. They underwent the first examinations during the 20th-27th week of pregnancy (G1), the second between 28 and 35 weeks (G2) and the third examination between 36 and 38 weeks of pregnancy (G3).

Muscle strength and endurance were measured using a digital pinch / grip analyzer and a digital myometer. Maximum muscle strength was measured and subsequently muscle endurance at both upper and lower limbs.

We found a statistically significant increase in the target time values expressed as a percentage, in periods G2 (by 9 %) and G3 (by 5 %) compared to period G1 on the right hand and a decrease in maximum force on the left hand by 15 – 20 % between G1 measurements. and G3. We also found statistically significant differences between the muscular endurance of the left and right hands in the G1 period, as well as the right and left legs in the G3 period. Statistically significant associations of dynamometric parameters with birth-related parameters, such as length of pregnancy, length of birth and weight of the child, were found.

Key words: pregnancy, muscle strength, muscle endurance