

Effects of phenylephrine, D600, and sodium nitrite upon membrane potential and isometric tension in rat aortic smooth muscle

ESC-ID 614
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ing of forearms on the chest ($p = 0.048$), using arms for
back scratching ($p = 0.01$) and applauding ($p = 0.04$),
while in Serbian population it was established for wink-
ing activities: crossing of forearms on the chest ($F = 4.407$, $p =$
 0.03), back scratching ($F = 8.764$, $p = .00$), winking ($F =$
 4.674 , $p = .03$), as well as with regard to their ethnic affilia-
tion for applauding ($F = 5.224$, $p = .02$).
Conclusion: Our results point at the gender differences, as
well as at the ethnic differences with regard to the use of the
dominant side of the body. Owing to the fact that our study
included the elementary school pupils, it would be significant
to do a follow-up with the older Gipsy population in order to
establish whether the differences found in Gipsy pupils remain
or change with years.

Amplitude changes in motor unit action potential of biceps brachii muscle during fatigue

ESC-ID 479
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Introduction: Action potential of all muscle fibres of one
motor unit is called motor unit action potential (MUAP).
Aim: Registration of amplitude changes in MUAP of biceps
brachii muscle of dominant arm during development of
fatigue in non sportsmen and recreational weight-lifters.
Method: Study was performed on 25 persons of both sex
divided into two groups. First group consisted of 10 male
recreatives - weight lifters. In the second, control group (7
male and 8 female subjects) were students of the Faculty of
medicine in Novi Sad. The research was conducted in two
phases. The first phase comprised of gathering anamnestic
and anthropometric data as well as determination of single
maximal voluntary contraction by determination of 1 RM (one
repetition maximum) of the dominant arm. The other phase of
the research comprised the registration of amplitude changes
in motor unit action potential, using surface monopolar EMG
electrodes, during the static (isometric) contraction, using
weight which mass was 30% of 1 RM, until breakdown. The
registration was performed twice with time interval of 15
minutes.

Results: In both groups, the second measurement lasted sig-
nificantly shorter than the first. In the analysis of the EMG
registration results, linear dependence of the amplitude of
MUAP in time was noticed. In both groups the amplitude of
MUAP rises during the registration. Significantly higher
starting amplitudes of MUAP in the second measurement
were registered in both groups. In comparing the results of
recreatives and male non-sportsmen we noticed significantly
higher value of starting amplitude of MUAP of recreatives in
the first and the second measurement than the values of
amplitudes of MUAP of male non-sportsmen. In analysis of
changing rate of amplitudes of MUAP, we found significant-
ly higher values in the second measurement of male non-
sportsmen.
Conclusion: There are no significant gender differences in
the observed parameters. Amplitude changes in MUAP are in
correlation with development of fatigue.

Ethnic and gender dominant side differences in Gipsy and Serbian pupils as established by means of performance tests

ESC-ID 578
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Introduction: While numerous studies have aimed to cast
light on the causes of hemispheric asymmetry, there are rela-
tively few studies that deal with ethnic differences in lateral-
isation. This study is concerned with gender interaction, dom-
inant sides and ethnic affiliation.
Aim: 1. to study the dominant side in Gipsy and Serbian chil-
dren of male and female gender: 2. to establish existence, if
any, of ethnic and sex differences in dominant side use.
Material and Methods: The sample consisted of 255 pupils
(110 of female and 145 of male gender; 166 of Gipsy and 89
of Serbian population), from the first through the seventh
grade of elementary school. The pupils were studied with
regard to eight lateralized tasks that imply the primary use of
one body part in two-hand activities.
Results: Hi square test established a statistical gender signif-
icance for the following activities in Gipsy population: cross-