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Acta Medica Iranica
2009;47(4) : 21-24

Effects of direct current on motoneuron reflex excitability (Assessed by H-reflex amplitude) in healthy subjects

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Abstract:

The purpose of the this study was to investigate the effect of direct current on montoneuron reflex exitability. Thirty six subjects (18 males, 18 females) 19.36 years of age (x= 24.06, SD= 3.63) participated in this study. The reflex excitability of soleus motoneruons was assessed by measuring the amount of change in the peak to peak ampitude of the H-reflex before and after direct current was applied to the skin over the sural nerve. Reflex recordings were taken before and after direct current was applied. Direct current was administered for 5 minutes at an intensity no greater than 4 m A.A complete randomized block with one sample in each block was used. Paired t-test with Scheffe correction for multiple comparisons were used.A significant in H-refelx amplitude was demonstrated for 5 minutes at an intensity no greate than 4 m A. a complete randomized block with one sample in each block was used. Paired t-test with Scheffe correction for multiple comparisons were use.A significant in H-reflex amplitude was demonstrated for all post baseline measurements when compared to baseline. These results suggest that direct current has a facilitatory effect on motoneuron reflex excitability. In addition, motoneuron reflex excitability remained increased for 10 minutes after stimulus had been turned off

Keywords:

H-reflex ، Motoneuron excitability ، Direct current

TUMS ID: 1257

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