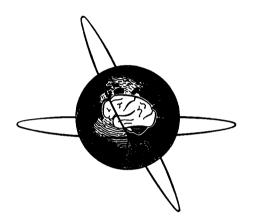
# ELECTROENCEPHALOGRAPHY

AND

# CLINICAL NEUROPHYSIOLOGY

JOURNAL OF THE INTERNATIONAL FEDERATION OF

CLINICAL NEUROPHYSIOLOGY



## Abstracts of the XIIIth International Congress of Electroencephalography and Clinical Neurophysiology

## Vancouver, Canada, August 29-September 4, 1993



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### XIII INTERNATIONAL CONGRESS OF EEG AND CLINICAL NEUROPHYSIOLOGY

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#### Body Composition Analysis with Bioelectric Impedance Measurement in Neuromuscular Diseases

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Most of generalized neuromuscular diseases show atrophy of musclis and mesenchymal alteration processes. Bioelectric impedance analysis (BA) is a fast and well tolerated procedure for measurement of body composition (fat, water) (Baumgartner, R. N. et al., J. Clin. Nutr. 48: 16, 1988).

BIA was assessed in 207 adult patients (110 males, 97 female:) with neuromuscular diseases, confirmed by clinical symptoms, electromyography, and muscle biopsy. The results were compared with those of 118 lealthy controls (65 males, 53 females). Using multiple regression and corrilation analysis for sex, age, height, and weight normal values with stindard deviations (SD) were established for the control group. The median vilue of relative body fat [% of body weight] in male patients lay 3.8 SD (p < 0.001) (Mann-Whitney-U-test), in female patients 1.0 SD (p < 0.001) above hat of controls, the median value of relative body water [% of body weight] in male patients 2.5 SD (p < 0.001), and in females 1.1 SD (p < 0.001) below hat of the controls. 30.1% of the male and 21.4% of the female patients slowed a minimal SD of 3.0 in percent body fat, compared with 7.7% of malis and 1.9% of females in the control group. The deviations were highly corelated with the severity of muscle weakness.

In conclusion, BIA seems to be a very simple and fast, bit not very sensitive method for assessing the degree of muscle lipomatis in generalized neuromuscular diseases.