

**EVALUATION OF NEUROMOTOR PERFORMANCE IN ACTIVE ELDERLY WOMEN IN ONE-YEAR PERIOD AS RELATED TO CHRONOLOGICAL AGE.**

SANDRA MATSUDO, TIMÓTEO ARAÚJO, ERINALDO ANDRADE, VICTOR MATSUDO, TURÍBIO LEITE BARROS.

Physical Research Center – CELAFISCS – CEMAFE-UNIFESP – EPM

**Medicine & Science in Sports & Exercise, vol 32, nº 5, (suppl.)S219:1030, may, 2000.**

**47<sup>th</sup> Annual Meeting American College of Sports Medicine, Indianapolis, Indiana USA.**

The purpose of this study was to compare the evolution of neuromotor performance in active elderly women in one-year period related to chronological age at the baseline. The sample consisted of 117 women from 50 to 79 years of age ( $x: 65 \pm 6.6$  years) divided in three age groups. A:50-59 (n = 23); B:60-69 (n = 60); C:70-79 (n = 34). They were involved in an aerobic program that included low impact aerobics and stretching activities, twice a week, 50 minutes per session during  $5.4 \pm 3.0$  years. This group is part of The Longitudinal Study of Aging and Physical Fitness which had been evaluating a group of active elderly men and women every six month since 1997. The motor function and mobility tests included: handgrip strength (HGP), vertical jump (VJ), shuttle run (SR), sit and reach test (FLEX), sitting to standing position test (SS), static balance (SB), gait speed (GS) and maximum gait speed (MGS). Results at the baseline (B) and in the next two evaluations (1, 2) were compared using Two Way ANOVA, post-hoc Scheffé and Kruskal-Wallis test to compare the delta ( $\Delta$  %) variations ( $*p < .01$ ). The results for mobility tests were as follows:

		SB (sec)			SS (sec)			GS (sec)					
MGS (sec)		B	1	2	B	1	2	B	1				
2	B	1	2										
A	x	20.2	19.6	21.6	.79	.68*	.62*	3.2	2.9*	2.8*	2.5	2.4	2.3
	s	11.0	11.1	9.9	.16	.16	.17	0.4	0.4	0.3	0.3	0.3	0.4
B	x	19.6	19.5	17.0	.87	.71*	.69*	3.4	3.2*	3.0*	2.7	2.6	2.5
	s	10.5	9.2	9.5	.26	.25	.15	0.9	1.2	0.4	0.4	0.3	0.4
C	x	11.0	12.1*	9.0*	.85	.81	.76*	3.4	3.3	3.3	2.8	2.8	2.7
	s	9.3	8.0	7.3	.19	.27	.19	0.4	0.5	0.5	0.3	0.3	0.3

The data for lower and upper limb strength and agility did not show any variation in the three age groups. The SS and GS evidenced significant differences in all age groups: in relation to the baseline data, women had better results in the 6 and 12-month periods. The flexibility in the A and C groups presented significant lower values after 12 months. These results suggested a different effect of aging on physical fitness variables in active women.