[PO03-187]

BALANCE AND FALLS AMONG THE ELDERLY PARTICIPATED IN DIFFERENCE TYPES OF EXERCISE

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OBJECTIVES: To compare quantitative balance data and falls rate among elderly who participated in different types of exercise.

METHODS: The healthy elderly aged between 60-70 years were participated in this study. They were categorized in 4 groups, 30 persons per group, i.e. control, walking, Tai-Chi and social dance. The control group had non-regular exercise. Each exercise group was at least 1 year regularly participated in one from three types of exercise. Exercise, balance and falls history were interviewed. Balance was tested with single leg stance (SLS) ; both eyes open and eyes closed. Computerized dynamic posturography (BalanceMaster) was performed in two protocols i.e. sensory organization test (SOT) and voluntary motor

impairment test [i.e. limit of stability (LOS) and rhythmic weight shift (RWS)].

RESULTS: A total were 120 elderlies. Each group had falls rate as followed: control 46%, walking 30%, Tai-Chi 26% and social dance 20%. Social dance group had falls rate lower than control group significantly ($p=0.01$). No significant different of falls rate between control and Tai-Chi and walking group ($p>0.05$). Exercise groups had a single leg stance time during eyes open and eye closed better than control group, 3 and 2 times respectively. The single leg stance time of all types of exercise group were significantly better than control group ($p<0.05$) except left single leg stance with eyes closed that only social dance group had significantly better than control group ($p=0.01$). The SOT were not significant different between groups ($p>0.05$). The LOS of social dance group was better than other groups ($p<0.05$). The RWS of Tai-Chi group was better than other groups ($p<0.01$).

CONCLUSIONS: All types of exercise have lower falls rate and better timed single leg stance than control group. The social dance group has best static (SLS) and dynamic (computerized dynamic posturography) balance with lowest falls rate.

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