
Epidemiology

2.14 Quality of Life and Pulse Pressure in Elderly People: the Role of Physical Exercise

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Objectives: The aim of this study is to evaluate physical activity's effects on average blood pressure, on pulse pressure and also on the quality of life in elderly people.

Methods: 27 elderly people have been studied (12 males, 15 females, average age 68 ± 3). They were previously diagnosed hypertension and they were already under treatment. Then aerobic exercise has been prescribed.

They were compared to a control group composed of 32 subjects (12 males, 20 females, average age 69 ± 4). All patients were treated for 12 months.

Before and after follow-up subjects underwent: 1) clinical measurement of blood pressure; 2) ambulatory blood pressure measurement (ABPM); 3) quality of life measurement through SF-12 questionnaire. Blood Pressure measurement resulted from average of 3 measurement performed every 5 minutes. SF-12 questionnaire, shorter version of SF-36 questionnaire, presents only 12 questions out of 36 of the enlarged version. It investigates 2 indexes: PCS (Physical Component Summary) for the physical state and MCS (Mental Component Summary) for the mental state.

In all subjects of both groups hypertension was treated with monotherapy or with a combined therapy. Therapy wasn't modified during the follow-up.

Results: Before and after the follow-up period in hypertensive elderly people treated with physical exercise we had these data: 1) Blood Pressure: SBP 159 ± 21 vs. 134 ± 13 mmHg ($p \pm 12$ vs. 87 ± 14 mmHg ($p \pm 4$ vs. 62.10 ± 3 mmHg ($p 0.05$). After the follow-up compared to the control group we detected a larger reduction in blood pressure data and an improvement in both physical and mental state.

Conclusions: A regular physical activity associated to an effective antihypertensive therapy in elderly people causes a reduction of the pulse pressure and improves the quality of life.