PHYSIOTHERAPY IN GERIATRIC CENTERS – DIRECTED ACTIVE EXERCISES AND ACTIVITIES IN EVERY DAY LIFE

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RESUMEN

Siendo cada vez mayor el numero de personas que ingresan en residencias geriátricas, se impone la realización de protocolos por parte del fisioterapeuta para intentar que las actividades de la vida diaria (AVD) no se vean impedidas en los últimos años de la vida. En el presente trabajo se trata de demostrar que con una tabla adaptada de ejercicios activos se puede conseguir una buena calidad de vida de los ancianos que ingresan en un geriátrico.

PALABRAS CLAVE

Fisioterapia, Actividades de la vida diaria (AVD), Geriátrico, Tabla de ejercicios.

Abstract

Being each greater time the number of persons that enter in geriatric residences, the execution of protocols on the part of the physical therapist is imposed to try that the activities of the daily life (OLA) themselves be not seen impeded in recent years of the life. In the present I work is a matter of showing that with a board adapted of active exercises a good quality of life of the elders can be obtained that enter in a geriatric one.

KEY WORDS

Physical therapy, Activities of the daily life (OLA), Geriatric, Board of exercises.

INTRODUCTION

The aim is to mesure the benefits of mild active exercise in the old age.

For the following study, it has been chosen a population of 29 elderly from two geriatric residences (Ageval and Santa María, de Castrillón – Asturias) whose ages vary from 70 to 92 years (21 women and 8 men) who do an exercise board. Other population of 18 elderly (14 women and 4 men) don´t workout with the same exercise board.

The aim is to mesure the non traumatic ankylosis developed in this working groups. Therefore, several joints are evaluated: their arches are measured before the treatment and one year later (or whenever a pain episode may take place, or a reduction in mobility due to non-traumatic causes). The joints subjected to study are: neck, shoulders, wrinkles, lumbo-sacral hinge, hips and knees. The election of these joints is done because they are the ones which develop the more ankylosing pathologies in the old age.

There are also taken references of painful episodes explained by the patient according to the joints under study and the arthrosic or arthritic pathologies which could distort the results.

People neither with no mental disorders nor with handicappted illnesses are selected. A mini-cognoscitive Lobo exam is done.

The Katz and Barthel index in ordinary life activities is done in the beginning of the study and in the end, to stablish how deteriorated the old person is according to OLA.

MATERIAL AND METHOD

After the mesurements and the data gathering, we stablish an exercise board with the first group during approximately 60 minutes, twice per week, and 10 repetitions per exercise. The board is the following:

SEDESTATION EXERCISES

- Flexion and extension of neck
- Lateral flexion of neck at both sides
- Neck rotation to both sides
- Shoulder elevation with arms hanging
- Shoulder forward rolling
- Shoulder backwards rolling
- Elevated Higher limbs, to touch the ground and go back to position
- Arms hanging, touch ground (or trying to) on the sides
- A hand on the nucha, the other on the backside: swop the positions of hands, one descends, the other rises
- Same movement, with the arms stretched, one upwards and the other downwards
- Crossed hands, arm elevation rotating hands and stretching elbows
- Hands on the nucha, take elbows backwards and relax
- Hands on the nucha, side flexions of the trunk
- Hands on the nucha, trunk rotations
- Arms hanging, arms elevation and doing the cross position
- Same movement as the former, rising arms up to the vertical position
- Elevation of the arms, extended shoulders up to eye height
- Elevation of the arms, extended shoulders up to the vertical position
- Elbow flexion-extension
- Arms in cross position, flexion-extension of the elbows
- Arms hanging, wrist extension
- Arms hanging, open hands, close fist and extend
- Arms in cross position, same movement as the former
- Knee elevation, alternating
- Feet together, elevation of both knees at the same time
- Knee extension, alternating
- Feet together, extension of both knees at the same time
- Toes with feet together
- Heels with feet together
- From the sedestation position, go to the bipedestation position rising arms up to the vertical

BIPEDESTATION EXERCISES

These exercises are done in bipedestation. Every elderly is located behind his chair and holds the back for security reasons:
- Elevated arms, touch the back of the chair
- Arms along the side of the body, touch the knees sideways
- Same movement as the former, elevating at the same time the opposite arm over the head
- Clapping over the head, all together, as if it was one only clap
- Arms in the cross position, claps in front of the face, as if it was one only clap
- Holding the back of the chair, rise one knee and after the other
- Flexion of knees, alternating
- Rising legs with the knee stretched, one on each side of the chair
- Extension of hips, alternating
- Abduction of hips, alternating
- Toes, elevating body
- Heels
- Holding onto the back of the chair, duck and stand up
- Rise arms sideways, breathing in by the nose and breathing out when the arm lower.

After an exercise board, the physioterapeuts stimulate the older people to play with the soft ball sitting down on a circle first and randomly throwing the ball later. In this second stage, the elderly must take the ball in his hands and throw it back again.
The session ends making them play between them during 5 minutes.
All the exercises are done in front of the group to rendorce imitation, in case they have any doubt.

RESULTS

In one year time after starting the workout, an evalution of the old people is done. This evaluation was done both on the groups who did the mild active exercises and the group who didn´t.
When the evaluation of those who didn´t do the exercise board (18 old people, 14 women and 4 men), it is observed:
- 6 of them don´t pass the limit of 24 points of the mini cognoscitive Lobo exam (4 women and 2 men)—33%
- 2 women in this group lower in the Katz index from B to E and 1 man overcomes to G, in other words, to become totally dependant for ordinary life activities-- 16%
- According to the Barthel index, it is observed that 5 of the old people reduce their score and become dependant in the ordinary life activities (between 20 and 35 points)-- 27%
- 5 elderly women suffer from reduction in their shoulder and knee arches, not objectivating any cause due to

trauma -- 27%
- 7 of the older people express joint and/or muscle pain along the year in observation.-- 38%

According to the group who did the mild active exercise board:
- 4 old people (3 women and 2 men) reduce their score in the mini cognoscitive Lobo exam, not exceeding the limit -- 13%
- According to the Katz index, 3 women and 2 men reduced their score from A or B to E -- 17%
- In the Barthel index, it is observed that 4 older people become dependant with punctuations which vary between 20 and 40 points -- 13%
- 4 elderly suffer from reduction in their joint arches in neck, shoulder and hip –- 13%
- Only 6 older people show joint and/or muscle disorders along the year in observation- 20%

As a summary, we found with:

Alterations in the exams (%)	**Active exercise Board**	**No active exercise board**
Lobo Exam	13%	33%
Katz Index	17%	16%
Index Barthel	13%	27%
Arches affectation	13%	27%
Muscle and/or joint pain	20%	38%

CONCLUSIONS

It is observed in this essay that mild active exercise benefits the older people in the physical aspect, but also in the psichic aspect. In the cognoscitive Lobo exam, it is appreciated how the percentage in the score reduction is a 20% difference better in the older people who did the board of exercises than in those who didn´t.

It is also seen observed that the subjective sensation of wellbeing in the older people is bigger between the group who did the exercises, since they express pain or incomfort in an 18% less than the other group.

Therefore, we can finish affirming that it is very advisable for the elderly to practive mild active exercise done, at least, twice a week without muscle exhaustion. This exercise benefits them both physically and mentally, helping them to keep up the ordinary life activities (OLA) and, consequently, their self-esteem, gaining an improvement in their life quality in the old age.

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