

Abstract No. **13**

Category: **Prevention**

Title: **The Benefit of a Cardiac Rehabilitation Program in Functional Status is Independent of Age, Results of a Prospective Cohort**

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Abstract:

Background: Cardiac rehabilitation programs (CRP) are recognized as integral to the comprehensive care of patients with cardiovascular diseases. However, patients over 80 years old are less likely to be referred to a CRP compared to younger patients. This study aims to show the benefits of CRP in terms of gain of functional status in patients over 80 years old compared with younger individuals.

Methods: We conducted a prospective, cohort, single-centre study. All consecutive patients that were referred between April 2014 and October of 2018 to CRP and where able to do physical activity were included. Only the patients that completed the rehabilitation program (36 sessions) were included in the final analysis. Functional status was evaluated through the 6-minute walk test (6MWT). The gain in the distance walked (meters), and percentage of the predicted (defined for a healthy patient at a given age, height, weight and gender) were the primary outcomes.

Results: There were 45 (9%) patients over 80 years old among the 499 patients that completed the cardiac rehabilitation program. The median of weeks in therapy was 10 (interquartile range IQR 8 – 13), with a median of sessions per week of 4 (IQR 3 – 5). Overall, there was a significant improvement in 6MWT with an initial distance of 425 meters (IQR 341 – 510) vs final distance of 517 meters (IQR 430 – 594) ($P < 0,0001$). The absolute change of patients over 80 years was lower (40 meters [17 – 91] vs 74 meters [36 – 137]; $P < 0.01$). However, there were no significant differences in the percentage of improvement of the predicted distance among both age groups, being 15 % [7 – 25] vs 10 % [4 - 25] for the younger and the oldest group respectively ($P = 0.11$) (Figure 1).

Conclusion: CRP improved functional status measured by 6 MWT after finishing the program. The improvement was non significantly different between patients over 80 years old compared with younger counterparts when analysed as the percentage improvement of the predicted distance.