Cardiovascular diseases

Lecture

CO43-005-e

Teachers in adapted physical activity in rehabilitation pathway: Towards a better definition

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The teachers in Adapted Physical Activity (APA), usual term to define professionals in this area, is becoming increasingly common in the health care environment. Due to the changing landscape of health, interest in the profession is growing, and it is now recognized by scientific societies and governments. For a decade, teachers in APA actively involved in the multidisciplinary management of patients admitted to rehabilitation centres. They work in the three main areas of support provided by these structures (exercise training, therapeutic education and psycho-behavioral support) which is a characteristic motivating recruitment in university education diploma. It therefore seems necessary to list these limits and suggest possible improvements to better structure the profession in rehabilitation.

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Oral communications

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The relationship between central hemodynamics and systemic vascular resistance in patients with heart failure at cardiac rehabilitation

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Background.– Congestive heart failure is a major cardiovascular syndrome with increasing incidence and prevalence. Cardiac rehabilitation is a valuable non-pharmacologic intervention for improving aerobic fitness and overall health status in patients with CHF, but controversy persists regarding the type and degree of exercise that optimally promotes the adaptation in central hemodynamics and peripheral vascular resistance.

Methods.– The potential study subjects were outpatients (2012–13) with diagnosis of CHF who attended the cardiac rehabilitation program. The final study population (n = 40; 67.9 ± 8 yrs) completed 8 weeks of aerobic interval training. Non-invasive central hemodynamics parameters and total peripheral resistance were assessed by the whole body bio-impedance method before and after cardiac rehabilitation.

Results.– All patients were in stable clinical conditions and under optimal medical treatment. After cardiac rehabilitation program, central hemodynamics changes were statistically significant: stroke volume increased from 74.98 ± 22.3 to 79.75 ± 21.24 ml (P < 0.003), Total peripheral resistance decreased from 1821.0 ± 455.45 to 1706.0 ± 521.25 (P < 0.036) and heart rate decreased from 60.42 ± 8.75 to 57.9 ± 8.64 bpm (P < 0.015). There was a negative, significant correlation between changes observed for stroke volume (r = –0.429, P < 0.006), cardiac output (r = –0.644, P < 0.000) and heart rate (r = –0.543, P < 0.000) with total peripheral resistance.

Discussion.– Our data suggests that exercise training benefits CHF patients by playing both central and peripheral hemodynamic effects. These effects seem to be fairly related to each other.

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