Cardiovascular diseases (CVDs) are a well-known cause of death and physical incapacity worldwide. Heart failure (HF) is a common disease resulting from multiple etiologies that contribute to decreasing physical capacity and quality of life (QOL). Not long ago physical exercises were discouraged in CVDs, but evidence-based exercise programs augment QOL, reduce mortality and hospital readmission in HF. Strength training is an important component of a cardiac rehabilitation program due to its close relationship with improvements in functional capacity reverberating in activities of daily living and QOL.

Unfortunately, supervised-rehabilitation programs in fitness centers are not widely available for the majority of patients with heart disease. Nevertheless, home-based rehabilitation programs could be more accessible to most patients, because of its relatively low cost and feasibility. Especially during COVID-19 pandemic lockdown, many opportunities to exercise were suspended, including cardiac rehabilitation services and community health programs. Also, social distancing increased sedentarism numbers and several position statements have encouraged people to stay active at home, trying to reverse or counterbalance the additional impact of social distance on physical inactivity. In a practical perspective, resistance training is conventionally performed through free weights or weight machines that usually require extensive physical space and outside facilities (i.e., gym or rehabilitation centers). Thus, resistance exercises, in particular, are not easily adopted at home and could be omitted from home-based cardiac rehabilitation. To underscore, a question that must be made: How patients remain strong at home?

In the current issue of the International Journal of Cardiovascular Sciences, Silva and colleagues demonstrated that short-term resistance training with elastic tubing improved peripheral muscle strength and functional capacity in adults (45-79 yrs.) with heart disease in phase II of cardiovascular rehabilitation. Resistance training using elastic tubing is a low-cost and practical tool to increase neuromuscular activation in specific rehabilitation settings with a minimal risk of injury. It was demonstrated that resistance training with elastic tubing promoted similar positive effects on peripheral muscle strength and functional capacity in the elderly compared to conventional resistance training using weight machines. In patients with chronic obstructive pulmonary disease (COPD), resistance training using elastic tubing had a greater effect on functional exercise capacity compared to traditional resistance training. Regarding muscle strength and quality of life improvements, elastic tubing was equal to traditional resistance training in COPD. When performed at home, resistance training with elastic tubing program improved strength after twelve weeks in older adults. Lastly, elastic tubing-based resistance training showed great self-efficacy and adherence to home-based rehabilitation.

In conclusion, resistance training with elastic tubing seems to be a feasible low-cost and practical alternative to improve or maintain the peripheral muscle strength in heart disease, becoming a potential strategy to be part of a home-based rehabilitation program to counterbalance the home isolation effect on physical capacity and clinical outcomes.

Keywords
Cardiovascular Diseases/complications; COVID-19; Cardiac Rehabilitation; Betacoronavirus; Heart Failure; Resistance Training; Social Distance; Music.
References


