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LETTER TO EDITOR

GLITTRE-ADL TEST: A PROPOSAL FOR FUNCTIONAL EVALUATION IN HEART FAILURE

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Glittre-ADL test was originally developed and validated to assess functional status of individuals with chronic obstructive pulmonary disease (COPD) by Skumlien et al. 2006[1]. In this test the patient reports the activities that promote discomfort during daily living activities. During its execution, functional capacity is evaluated by the time spent to perform a circuit that consists of global activities as walking, climbing up-and-down stairs, and trunk and upper limbs movements. The lower time spent the better is the functional condition[2].

Although COPD and chronic heart failure (CHF) are anatomically and pathologically distinct, exercise intolerance, dyspnea and fatigue constitute common alterations to both conditions with negative consequences to functional capacity[3]. Both, heart incapacity to maintain an adequate cardiac debit to tissue demands in CHF as well as ventilatory limitation in COPD will determine disease progression and peripheral alterations limiting exercise capacity[4]. Furthermore, in both disorders, systemic involvement, characterized by muscle weakness, chronic inflammation, muscle deconditioning, and inadequate O_2 delivery to peripheral muscles, show to be closely related to functional limitation than cardiac or pulmonary lesions themselves[5]. In these individuals it is also observed a strong association between functional capacity and activities of daily living (ADLs) performance limitation[2,6].

In CHF, physical testes that indicate ADL limitations involve walking, exclusively, for example the 6 minutes walking test (WT6), the incremental shuttle walk test (ISWT), and the cardiopulmonary exercise test (CPET). However, as daily activity usually requires lower energetic expenditure than maximal capacity for exercise, submaximal tests reflect disease impact on daily activities better than maximal tests[7]. This does not mean that maximal tests may be abandoned. On the contrary, CPET still the gold standard method to determine aerobic capacity, limitation degree, and the mechanisms involved on exercise limitation as well as to prognostic evaluation and cardiac transplant indication. However, every test shows different levels of physiologic response and

they are recommended according to their methodological advantages and disadvantages.

Glitter-ADL main advantage is, besides the fact that this is a rapid test that requires small space and it is of easy application, is the grouping of activities that are part of any individual daily activities such as walking, climbing up-and-down stair, sit and rise from a chair and the performance of movements with weight sustaining with upper limbs and trunk flexion. The inclusion of activities that use both, upper as well as lower limbs reflects more accurately daily activities limitations than a test that evaluates walking, exclusively (WT6 and ISWT). These advantages turn Glittre-ADL test an evaluation instrument with excellent perspectives of clinical viability for individuals with CHF, mainly if we consider that many of the observed limitations are common to COPD patients also, in which test validation is already consolidated. Valadares et al. performed Glittre-ADL test in 10 patients with CHF, stages II and IV of NYHA, to evaluate functional limitations[8]. Authors have observed that Glittre-ADL test showed moderate to high magnitude association with left ventricular function, walked distance in WT6, dyspnea and quality of life.

We do not intend to recommend WT6 and ISWT replacement, which are widely performed in patients with CHF, by Glittre-ADL test. Both, WT6 as well as ISWT have already showed to be effective, reproducible, sensitive to rehabilitation programs and valid on functional evaluation of these patients. However, it is still necessary to prove Glittre-ADL test validity in the evaluation and rehabilitation treatment response in individuals with CHF. It seems feasible to us that this test opens a new perspective of global evaluation and follow-up of individuals with CHF and that further studies may characterize it as a valid and reliable method to portray functional performance in daily activities in this population.

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