

Authors reply: Stevia: Long term data is lacking!*Reply*

We agree with the letter that Stevia may be the safest among the currently available artificial sweeteners, however there are some limitations to this product as well. They are more expensive than natural “sugar,” have some minor side effects (bloating, nausea, etc.) but most importantly have licorice flavor and somewhat bitter after-taste so much so that they are not liked by most. Interestingly, while Food and Drug Administration, USA has approved refined Stevia (product Rebaudioside A) as generally recognized as safe (GRAS), it has not approved leaf or extract of Stevia as GRAS because of possible effect on reproductive, renal or cardiovascular system. In any case robust, long term (5 years or so) data on clinical outcomes with Stevia is still lacking.

Vikas Purohit
Sundeep Mishra *

Department of Cardiology, AIIMS, India

* Corresponding author.

E-mail address: sundeepmishrai@aiims.com (S. Mishra).

Received undefined

<http://dx.doi.org/10.1016/j.ihj.2018.06.012>

Exercise based evaluations and rehabilitation in heart failure: An addendum to the Cardiology Society of India’s management protocols for chronic heart failure



The Editor,

We read with great interest the comprehensive consensus document on management of chronic heart failure (HF) recently published in the Indian Heart Journal.¹ To elaborate on the rehabilitative aspect, we hereby propose a rehabilitation algorithm for both hospitalized and out-patient, stable HF patients.

Exercise-based evaluations

Evaluation of exercise capacity is a crucial step to the functional assessment of patients with HF. Though the gold standard remains to be cardiopulmonary exercise testing, high costs of establishing labs makes this option unviable in India. Therefore, the use of the six minute walk test to assess the distance covered (6MWD). The test is safe and can be used across all classes of HF. Clinical monitoring using the 6MWD is useful and can be easily done with no extra costs of infrastructure.

Rehabilitation of HF

Participation in exercise training and physical activity for HF is a class I, Level A recommendation.² Recently, there has been a focus on early rehabilitation of acute HF patients. A previous study from our center found that participation in early CR for acute HF improved discharge 6MWD as compared to those not receiving early CR.³ Discharge evaluations with the 6MWD is important as it would guide exercise prescription following discharge.

Phase-2 CR requires patients to continue exercise either under supervision in a center or at home. With the barriers to CR in the Indian context highlighted in previous studies,⁴ supervised programs may not always be feasible. Thus, the need for low intensity home based programs which can be administered by an CR exercise specialist to ensure safety. Based on our data and current clinical practice, and on the early CR algorithm proposed for ST elevation myocardial infarction⁵ we propose a clinical rehabilitation algorithm for HF patients for both early and subsequent phase-2 CR (Fig. 1a and b).

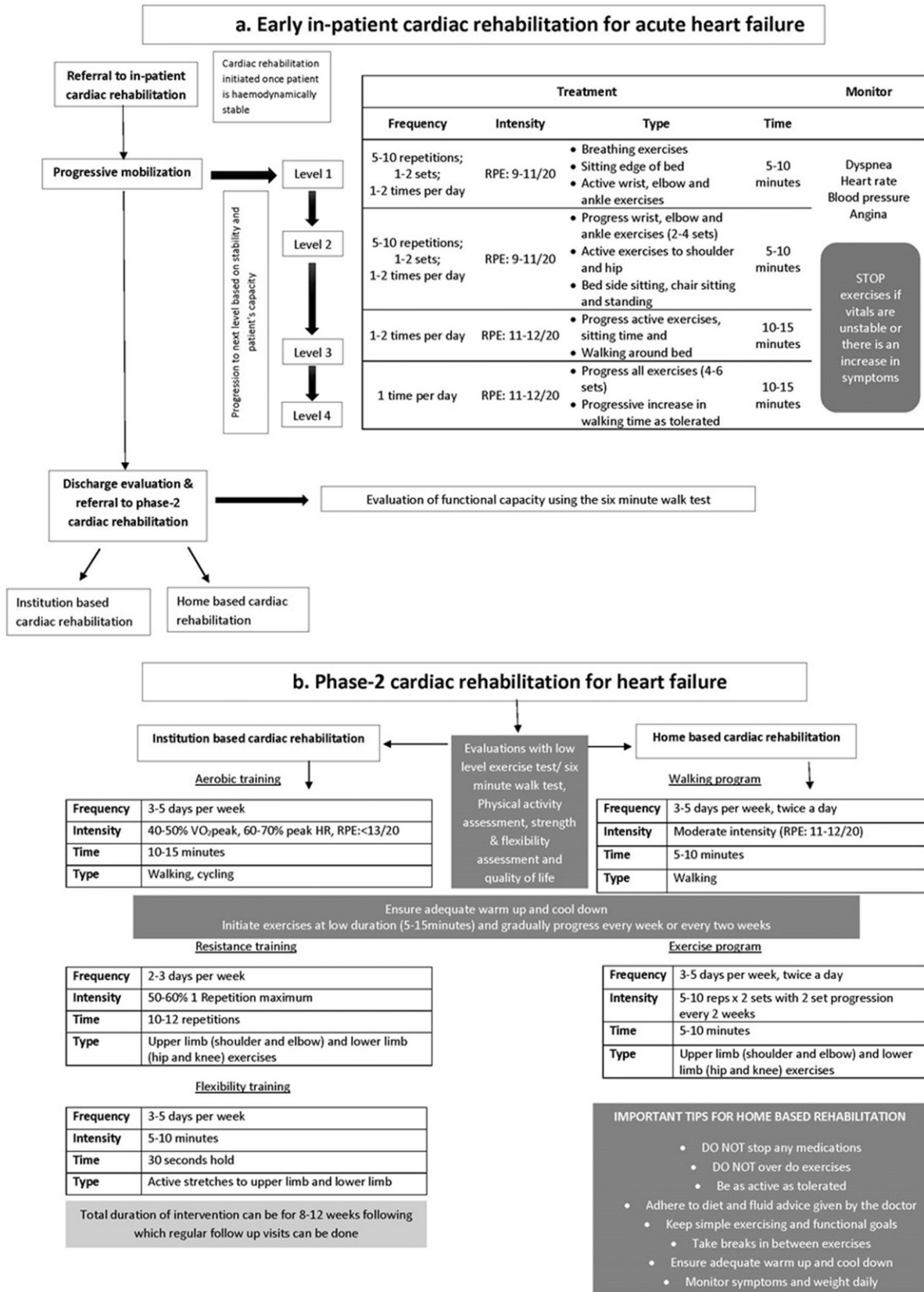


Fig. 1. In-patient rehabilitation for acute heart failure and Phase-2 cardiac rehabilitation for heart failure. Legend: HR – Heart rate; RPE – Brog’s Rating perceived exertion

References

1. Mishra S, Mohan JC, Nair T, et al. Management protocols for chronic heart failure in India. *Indian Heart J.* 2018;70:105–127.
2. Yancy CW, Jessup M, Bozkurt B, et al. ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol.* 2013;62:e147–239.
3. Babu AS, Maiya AG, George MM, Padmakumar R, Guddattu V. Effects of combined early in-patient cardiac rehabilitation and structured home-based program on function among patients with congestive heart failure: a randomized controlled trial. *Heart Views.* 2011;12:99–103.
4. Madan K, Babu AS, Contractor A, Sawhney JP, Prabhakaran D, Gupta R. Cardiac rehabilitation in India. *Prog Cardiovasc Dis.* 2014;56:543–550.
5. Mishra S, Ramakrishnan S, Babu AS, et al. Management algorithms for acute ST elevation myocardial infarction in less industrialized world. *Indian Heart J.* 2017;69(Suppl. 1):S98–s103.

Abraham Samuel Babu^{a,b}

^aDepartment of Physiotherapy, School of Allied Health Sciences, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India

^bDepartment of Cardiology, Austin Health, Melbourne, Australia

Ramachandran Padmakumar*
Tom Devasia

Department of Cardiology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India

* Corresponding author.

E-mail address: padma.kumar@manipal.edu (R. Padmakumar).

Received 28 March 2018
Available online 4 May 2018

<http://dx.doi.org/10.1016/j.ihj.2018.04.007>

Authors reply: Exercise, but with caution!



Reply

There is a need for regular aerobic exercise in patients with heart failure with a view to improve functional capacity and reduce symptoms as well as the risk of heart failure related hospitalization. However, the therapeutic window of this approach is rather narrow and there is a possibility of harm as well if overdone. The need of the hour is to individualize this approach for each specific patient (tailor the exercise regimen according to patient's phenotype and ability) but also region-specific guidelines (based on resources available and level of general education in the area). In this context proposed rehabilitation algorithm is a good idea particularly its emphasis on low-resource regions with emphasis on six-minute walk test to determine the physical capacity. As a matter of fact, active measures should be undertaken to educate not only cardiologists/physicians, physiotherapists, regulators but also patients regarding the salutary aspects of regulated exercise. However, the exercise programs should be custom made for individual patients and may even require the help of professionals. Furthermore, some practical tips should be given to these patients:

1. Don't exercise outdoors in extreme weather/high humidity. Do indoor exercise instead.

2. If the exercise produces any undue symptoms (palpitations, chest pain or pressure, difficulty in breathing, dizziness or

lightheadedness) immediately stop exercising and take rest. Seek medical attention if symptoms persist.

Sundeep Mishra *

Department of Cardiology, AIIMS, India

* Corresponding author.

E-mail address: sundeepmishraihj@gmail.com (S. Mishra).

Received undefined

<http://dx.doi.org/10.1016/j.ihj.2018.06.013>

Response to the editorial titled “BVS, RDN, IABP: The Afghanistan of interventional clinical trials



The Editor,

We read your editorial article¹ titled “BVS, RDN, IABP-The Afghanistan of interventional cardiology trials with great interest. You provide us with a great insight into the understanding of the failure of these highly anticipated therapies in their respective pathologies. We agree that these therapies like BVS and RDN were launched into the market in a haste and hype was created earlier than evidence was provided for their beneficial role. But we would like to differ in the inference of conclusion about IABP in cardiogenic shock. In our setting IABP is the one of most important tool in the management of cardiogenic shock other than revascularisation. The reason for failure of IABP SHOCK II² was probably because the etiology of cardiogenic shock is multifactorial IABP supports only one aspect of the cardiogenic shock by decreasing the afterload to the heart and increasing the diastolic blood flow in the coronaries. Patients presenting >12 h were excluded in this trial, these are the most high risk patients and these patients are more likely to benefit from IABP because management of these patients will not only be revascularisation but also myocardial stabilisation as shown in studies involving strain imaging.³ Along with RVMI patients, a significant number of patients with LV dysfunction and cardiogenic shock have a component of fluid responsiveness and these patients are better managed by giving fluid therapy based on IVC diameter. So blindly putting IABP in all patients with cardiogenic shock will neutralise the beneficial results, as it occurred in the IABP SHOCK II trial. Rather IABP insertion should be done in high risk cardiogenic shock patients like late presenters, with severe left ventricular dysfunction, critical Left main/triple vessel disease, then only we can show a beneficial role of these mechanical circulatory device in cardiogenic shock patients. Sicker the patient, more likely is the benefit of IABP.

References

1. Mishra S. BVS, RDN, IABP: the Afghanistan of interventional cardiology trials. *Indian Heart J.* 2018;70:1–3.
2. Thiele H, Zeymer U, Neumann FJ, et al. Intra-aortic balloon support for myocardial infarction with cardiogenic shock. *N Engl J Med.* 2012;367(14):1287–1296.
3. Dahlslett Thomas, Karlsen Sigve, Grenne Bjørnar, et al. Intra-aortic balloon pump optimizes myocardial function during cardiogenic shock. *JACC: Cardiovasc Imaging.* 2018;11(March (3)):512–514.