

- Insulin resistance is considered to be a primary etiologic factor in the development of non-ischemic heart failure; the best treatment approach for this condition is still debated.
- Metformin use in this setting has proven to exert positive effects on myocardial function despite lacking satisfactory effects in improving exercise capacity.
- We hypothesized that the combination of metformin and physical training was the best compromise in achieving both targets.
- Although the study was not a randomized clinical trial, and enrolled only 75 patients, our data confirmed that metformin treatment, alone or in combination with physical exercise, maintains its positive effects on myocardial function.
- Given the known positive effect on cardiopulmonary function of adding physical exercise to metformin, these findings suggest the advantage of the pharmacological and physical therapy combination to ward off the multiple adverse effects of insulin resistance on cardiovascular function.

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