Therapeutic adherence verification by bioimpedenziometric test in a sample of CardiacRehabilitation Unit patients

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Introduction

Coronary Heart Disease (CHD) is one of the main causes of mortality. Early cardiac rehabilitation (CR) has been shown effective in slowing progression of the disease. Multidisciplinary rehabilitative approach after myocardial infarction is useful for a change in lifestyle and secondary prevention of a long term complications.

Purpose

The paper aims to analyze the relationship between bioimpedenziometric test results and therapeutic adherence in a sample of patients admitted to Cardiac Rehabilitation Unit of Umberto I Hospital, Nocera Inferiore (Sa).

Methods

A sample of 44 patients (34 M-10 W) admitted to Cardiac Rehabilitation Unit is investigated.

A multidisciplinary team (a cardiologist, a nutritionist, a physical therapist, a nurse, a psychologist),

followed the patients for three months. At the admission to the Cardiac Rehabilitation the patients were subjected to bioimpedenziometric exam with MyBodyTest Cube, biochemistry exams, nutritional cardiological and psychological visit.

The outpatient cardiac rehabilitation programme consisted in:

1) disease-specific dietary advice (normo/hypocaloric, fiber- enriched diet, with slow release carbohydrates and n-3 polyinsatured fatty acids);

2) low-to-moderate-intensity physical exercise with training sessions delivered by health professionals;

3) education including information on CHD risk factor, psychosocial support while returning to usual activities.

During rehabilitation "time" all patients were adherent to Pharmacological, nutritional and physical Therapy. Bioimpedenziometry test and biochemistry exams was repeated 6 months after discharge and closure of the medical hospitalization.

Results

The results show that 6 months after discharge from Cardiac Rehabilitation Service there is a deterioration of patients general physical health and of parameters evaluated by bioimpedenziometric, anthropometric and biochemical exam.

The majority of the patients are gained weigth, and there is been a variation in bioimpedenziometric parameters (BIA): Resistance, Reactance, phase angle, BCM and ECM; in association to the variation of BIA test, there is a deterioration of total cholesterol, LDL, HDL, homocystein and PCR.

Weight	63% pt	
FM	61% pt	
ECM	52% pt	
BCM	44%	
Resistance	60%	Is deteriorated
Nutritional status	66%	Is deteriorated

Conclusions

This study shows the "non adherence" to physical and nutritional lifestyle: this is a bad therapeutic compliance in the long term.

This preliminary work highlights the limits and the importance to review our Cardiac Rehabilitation current methodology because the actual rehabilitation program is not predictive of a change in lifestyle in the long term.