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Lifestyle intervention and one-year prognosis of patients following open heart surgery: a randomised clinical trial.

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Abstract

AIMS AND OBJECTIVES:

To evaluate the one-year prognosis of a lifestyle counselling intervention (diet, smoking cessation and exercise) among patients who had open heart surgery.

BACKGROUND:

Cardiovascular disease is the leading cause of morbidity worldwide in both developing and developed countries. Lifestyle modification plays an important role for patients who are at a high risk of developing cardiovascular disease and for those with an established cardiovascular disease.

DESIGN:

Randomised, nonblind and lifestyle counselling intervention study with a one-year follow-up.

METHODS:

A randomised, nonblind intervention study was performed on 500 patients who had open heart surgery. After hospital discharge, 250 patients (intervention group) were randomly allocated lifestyle counselling according to the recent guidelines provided by the European Society of Cardiology (European Journal Preventive Cardiology, 19, 2012, 585). The remaining 250 patients (control group) received the regular instructions. Primary end-point was the development of a cardiovascular disease (nonfatal event) during the first year; secondary end-points included fatal events, smoking abstinence, dietary habits and a physical activity evaluation.

RESULTS:

According to the primary end-point, the odds of having a nonfatal cardiovascular disease event are 0·56-times (95%CI 0·28, 0·96, p = 0·03) lower for the intervention group compared to the control group. One-year after surgery, it was found that participants in the intervention group were 1·96-times (95%CI 1·31, 2·93, p < 0·001) more likely to achieve dietary recommendations, 3·32-times (95%CI 2·24, 4·91, p < 0·001) more likely to achieve physical activity recommendations and 1·34-times (95%CI 1·15, 1·56, p < 0·001) more likely to return to work.

CONCLUSION:

Lifestyle counselling intervention following open heart surgery can improve health outcomes and reduce the risk of a new cardiac event. Health care services must recommend and organise well-structured cardiac rehabilitation programmes adjusted to the patient's needs.

RELEVANCE TO CLINICAL PRACTICE:

A well-structured cardiac rehabilitation programme adjusted to the patient's profile is a safe and cost-effective way to improve patients' outcome.