

Controlled Drinking in Alcoholic Cardiomyopathy: What Is the Prognosis?

Nicolás JM, Fernández-Solà J, Estruch R, et al. The effect of controlled drinking in alcoholic cardiomyopathy. *Ann Intern Med* 2002;136:192–200.

Study Overview

Objective. To evaluate the effect of moderate “controlled” alcohol consumption on cardiac function in patients with alcoholic cardiomyopathy.

Design. 4-year prospective cohort study.

Setting and participants. 55 men with alcoholic cardiomyopathy were recruited from inpatient and outpatient units in a university hospital in Barcelona, Spain. All men were under age 60 years, and they had no evidence of any heart disease other than alcoholic cardiomyopathy. They reported ethanol consumption of more than 100 g daily for at least 10 years and had left ventricular ejection fraction (LVEF) of less than 50%.

Main outcome measures. Patients were instructed to abstain from alcohol completely and were followed for 4 years. Subsequent alcohol intake was assessed during annual interviews using structured questionnaires and corroborated by patients’ family members. Signs and symptoms of heart failure, New York Heart Association (NYHA) functional class, medication usage (adjusted according to the patient’s NYHA functional class), and echocardiography also were assessed annually.

Main results. The cohort consumed an average of 208 g of ethanol per day over 26.6 years prior to entry into the study. The baseline average LVEF was 39.3%. Based on their level of alcohol consumption, patients were classified as (1) total abstainers, (2) controlled drinkers (ethanol 20–60 g/day), (3) intermediate drinkers (60–80 g/day), and (4) alcohol abusers (> 80 g/day).

During the first year of follow-up, patients who were total abstainers and patients who were controlled drinkers demonstrated a statistically significant improvement in LVEF (total abstainers, 0.131 [95% confidence interval {CI}, 0.069 to 0.193]; controlled drinkers, 0.125 [95% CI, 0.082 to 0.168]). Improvements in LVEF and other echocardiographic parameters were similar in magnitude in these 2 groups. In contrast, intermediate drinkers showed no statistical improve-

ment in LVEF and alcohol abusers showed a statistically significant decline in LVEF. During subsequent 3 years of follow-up, patients who were controlled drinkers continued to show improvement in LVEF, although the improvement was of lesser magnitude than in patients who abstained completely (statistics not given). 10 patients died during the study period; all of them drank more than 80 g of ethanol per day during the first year of follow-up.

Conclusion. In patients with alcoholic cardiomyopathy, both complete abstinence and controlled drinking (< 60 g/day) led to improvement in cardiac function.

Commentary

Total abstinence from alcohol has long been the cornerstone of treatment for patients with alcoholic cardiomyopathy. Previous work has demonstrated improvement in clinical outcome [1] and left ventricular function [2] in patients who abstain from alcohol completely. Since many patients with alcoholic cardiomyopathy continue to drink, albeit in moderate amounts, this well-executed study provides invaluable prognostic information on patients who cannot achieve total abstinence.

Nicolás and colleagues demonstrated a somewhat surprising result: alcoholic cardiomyopathy patients who continued to drink moderately (20–60 g/day) experienced sustained improvement in cardiac function. Furthermore, during the first year of follow-up, the magnitude of improvement in controlled drinkers was similar to that in total abstainers.

Several caveats, however, should be born in mind when interpreting these results. First, this cohort is small, and, therefore, this study lacks the statistical power to discern differences in clinical outcome between total abstainers and controlled drinkers. In fact, there was a suggestion in the study that after 4 years of follow-up, total abstainers may sustain greater improvements in LVEF compared with controlled drinkers. Second, the small sample size of the cohort did not allow the authors to control for the role of baseline cardiac function, nutritional status, and comorbidities as potential confounders on the outcome. Third, the role of

controlled drinking in female alcoholic cardiomyopathy remains to be examined.

In spite of these limitations to the study, Nicolás et al offer hope to clinicians whose alcoholic cardiomyopathy patients continue to drink moderately. Given the challenges that already exist in treating patients with alcohol abuse [3], it would be unwise to send alcoholic patients mixed messages by recommending the moderate use of alcohol in place of total abstinence. Until studies can validate the safety and efficacy of this strategy, abstinence should remain the cornerstone of treatment for patients with alcoholic cardiomyopathy.

Applications for Clinical Practice

Patients with alcoholic cardiomyopathy may show moderate improvement in LVEF if they consume less than 60 g of ethanol daily. However, considering the limitations of this

study and the high relapse rate in patients with alcoholism, physicians should continue to advise these patients to abstain from alcohol completely.

—Review by Eric Poon, MD

References

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3. Sobell LC, Cunningham JA, Sobell MB. Recovery from alcohol problems with and without treatment: prevalence in two population surveys. *Am J Public Health* 1996;86:966–72.

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