

## MODERATE ALCOHOL CONSUMPTION COMBINED WITH EXERCISE ON THE DEVELOPMENT OF A MAJOR ACCIDENT SURVIVAL AFTER CORONARY

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### Abstract

*From the literature we know that moderate alcohol consumption with exercise increases HDL-cholesterol, platelet adhesion by influencing the antioxidant effect of resveratrol and quercetin gave contained in red wine and beneficial influence decreased fibrinogen and increased nitric oxide(NO), these effects having finally the role of inhibition of proliferation of muscle vessels, atherosclerotic plaque stabilization and correction of endothelial dysfunction.*

**Key words:** alcohol consumption, acute myocardial infarction, level of effort

### INTRODUCTION

It is known that relapse of acute coronary syndrome is based on the process of atherogenesis, is a factor of major accidents after fatal coronary development.

World are a series of studies on secondary prevention of recurrence by statin therapy (1), rehabilitation programs based on exercise with the purpose of increasing cardiac performance (2), and methods aimed at lifestyle (combat stress, smoking, cholesterol-lowering diet, and so on), all aimed at combating leadership potential arrhythmias and coronary accidents occurring late after receiving therapy and beta blockers, ACE inhibitors and the prevention of heart failure diastolic dysfunction, infarction aneurysms, when used often and invasive methods of treatment (2, 3).

Personal observations on some patients who have suffered a major accident Coronary related to the fact that we investigated retrospectively moderate alcohol from them, made us take a group of patients in the study who consumed besides classical therapy, one gram of alcohol as red wine daily, with gradual growth performance stage effort.

Moderate alcohol consumption recommended in patients (1g/day), especially because i know the effect of increasing HDL cholesterol (4), influencing platelet adhesion (5) by the antioxidant effect of resveratrol and quercetin gave contained in red wine (6, 7) and the fact that the beneficial influence decreased fibrinogen and increased NO (8), these effects having final role of inhibition of proliferation of muscle vessels and atherosclerotic plaque stabilization (9).

## MATERIAL AND METHOD

We studied two groups of patients:

- **group A** included 34 patients (19 males - 15 females and 55.88% - 44.11%), diagnosed with (acute myocardial infarction), AMI (based on clinical, ECG and enzymatic), who used the addition to traditional therapy 1g/day of alcohol as red wine made exercise.

- **group B** consisted of 36 patients (21 males - 15 females and 58.33% - 41.66%), also diagnosed with AMI (based on clinical, ECG and enzymatic) who received only usual therapy.

The average age of group A was  $56.8 \pm 7.1$  years and the group B of  $59.4 \pm 6.7$  years.

Therapy patients included: beta blockers, antiplatelet drug, ACE inhibitors, lipid-lowering, nitrates, antiarrhythmics.

During hospitalization for major coronary accident I watched the two groups following parameters (table 1):

Table 1

<i>Location AMI</i>		
Location AMI	Group A	Group B
-anterior	-7 cases (20,58%)	- 9 cases (25,00%)
-antero-septal	-9 cases (26,47%)	- 8 cases (22,22%)
-inferior	-7 cases (20,58%)	- 8 cases (22,22%)
-lateral	-6 cases (17,64%)	- 5 cases (13,88%)
-postero-inferior	-3 cases (8,82%)	- 4 cases (11,11%)
-high lateral	-2 cases (5,88%)	- 2 cases (5,55%)
Presence of systolic dysfunction	16 patients (47%)	17 patients (47,22%)
Presence of arrhythmias	10 patients (29,41%)	12 patients (33,33%)

The two groups of patients showed no significant differences by age, location of AMI and development during acute coronary accident. The two groups of patients were followed for 1 year after coronary major accident.

I watched clinical parameters:

- ❖ increase exercise tolerance (determined by step tracking exercise bike exercise) and perimeter walk gradually,
- ❖ increase in HDL-cholesterol,
- ❖ LDL-cholesterol and triglycerides,
- ❖ atherosclerotic plaque stability through crises presence of angina, stroke recurrence in the same territory or other area, presence of arrhythmias and management,
- ❖ influence ejection fraction,
- ❖ quality of life.

## RESULTS AND DISSIONS

We follow the two groups of patients increased exercise tolerance determined effort by following step by Borg scale, ergometric cycling and walking and found a better increase exercise tolerance of patients in group A who consumed alcohol moderate compared to those in group B (table 2).

Table 2

Level of effort	Group A		Group B	
	At baseline	At the end of the study	At baseline	At the end of the study
6-8 in 40 m/sec	14 patients (41,17%)	1 patients (2,94%)	15 patients (41,66%)	6 patients (16,66%)
9-10 40-60 m/	11 patients (32,35%)	11 patients (32,35%)	13 patients (36,11%)	11 patients (30,55%)
11-12 7-10 m/sec	7 patients ( 20,58%)	14 patients ( 41,17%)	7 patients ( 19,44%)	13 patients ( 36,11%)
13-14 100-110 m/	2 patients (5,88%)	8 patients (23,52%)	1 patients (2,77%)	6 patients ( 16,66 %)

HDL-cholesterol increased in group A from 32 mg% to 48 mg%, and in group B from 33 mg% to 42 mg%, and the LDL cholesterol decreased in group A from 210 mg% to 157 mg% and in group B from 216 mg% to 176 mg%. Triglycerides decreased in group A from 285 mg% to 186 mg%, and in group B from 304 mg% to 213 mg% (fig.1).

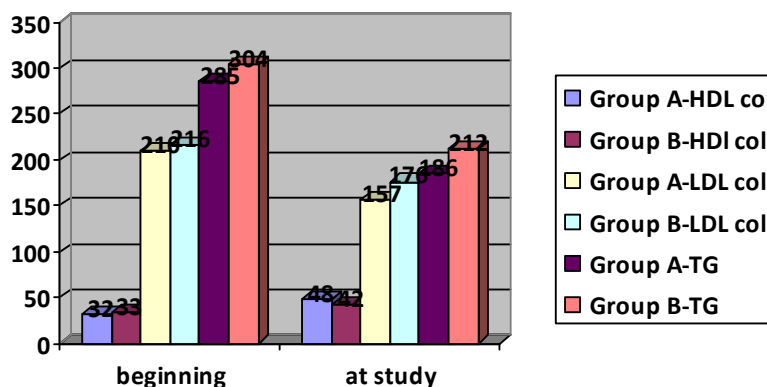


Fig. 1 Values lipidic profile

Atherosclerotic plaque stability I appreciated it by the presence of angina attacks, the recurrence of myocardial infarction in the same territory or in another territory, the presence of arrhythmias and leadership. Thus: anginal attacks in group A were present at baseline in 12 patients (35.29%)

and at the end of the study in 5 patients (14.70%) and in group B 14 patients (38.88%) in baseline and 8 patients (22.22%) completed the study (fig.2).

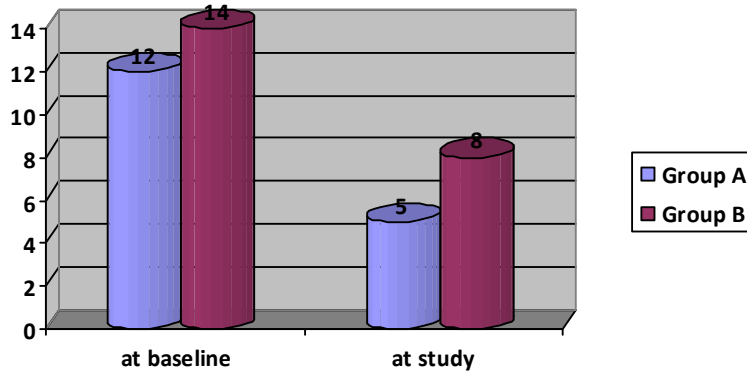


Fig. 2 Anginal crisis

Recurrence of stroke in the same territory or other area occurred in 2 patients (5.88%) in group A and 3 patients (8.33%) in group B (fig.3).

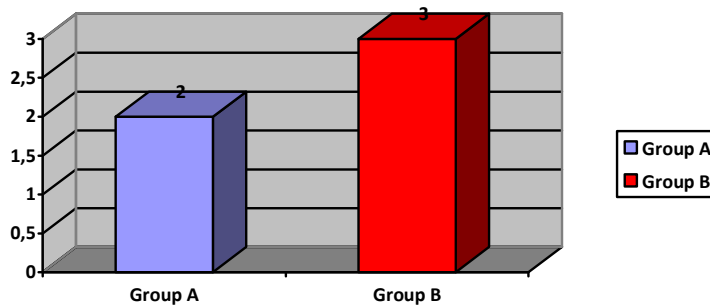


Fig. 3 Relapses AMI

Arrhythmias and leadership were present at baseline in 10 patients (29.41%) in group A and 12 patients (33.33%) in group B, and at the end of the study in 3 patients (8.82%) in group A and 5 patients (13.88%) in group B(fig.4).

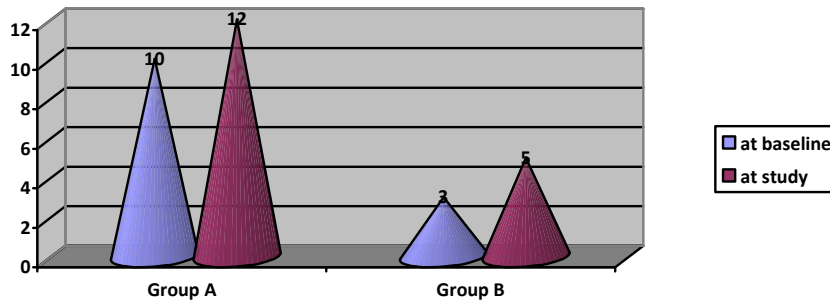


Fig. 4 Rhythm disturbances

At baseline average ejection fraction in group A was 39.8% and in group B 40.1%. At the end of the study it increased in both groups, but a greater increase occurred in group A, group who consumed 1g/day of alcohol and made physically onerous. Thus at the end of secondary education was 47.7% in group A and 43.6% in group B (fig.5).

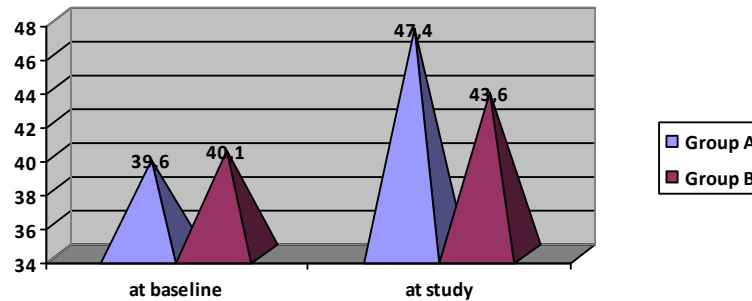


Fig. 5 Ejection fraction

Improving quality of life (stated by patients) occurred in 16 patients (47.05%) in group A and 11 patients in group B (30.55%). In group A at the end of the 12 month study died sick it (2.94%) and in group B died 2 patients (5.55%).

## CONCLUSIONS

In conclusion we can say that medication ischemic heart protection with the antioxidant effect of moderate alcohol consumption, with gradual effort had a positive effect on the development of coronary patients with major accident, it reflected the group A patients who consumed alcohol: increased exercise tolerance, increased left ventricular ejection fraction, reduction of post-infarction complications and improving quality of life.

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