

Atorvastatin

Better to be taken in the evening

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The purpose of the study was to investigate the effects of morning vs. evening intake of atorvastatin primarily on major cardiac events and restenosis rates but also on serum lipid and high sensitivity C reactive protein levels (hs CRP), in patients with single-vessel disease who underwent first elective percutaneous coronary intervention.

This was a prospective randomized study including 152 consecutive patients, aged 48-71, 34 women, with single-vessel coronary disease who underwent first elective percutaneous coronary intervention (PCI). The subjects were randomized to receive atorvastatin in the morning (group I, n = 73) and in the evening (group II, n = 79). The atorvastatin dose was 40 mg/day for the first month and 10 mg/day afterwards. Lipid values were measured initially and at 6 months. High sensitivity CRP levels were determined before and 24 hours after the interventional procedure.

The end point was the occurrence of a major cardiac event: sudden death, unstable angina pectoris, myocardial infarction or

target vessel revascularization. All the patients were taking atorvastatin at the end of the follow up period. 110 patients (72.3%) underwent coronary angiography at a mean of 7 months after PCI.

In both groups atorvastatin had a positive influence on the lipid level ($p < 0.0001$), but in group II, at 6 months, the total cholesterol, LDL cholesterol and triglyceride levels were lower and HDL cholesterol levels were higher. The restenosis rate was lower in group II (7.5%) than in group I (34%) ($p < 0.001$). The occurrence of major cardiac events was significantly lower in the group who received atorvastatin in the evening (8% vs 36% $p = 0.0002$).

Some limitations of the study have to be mentioned:

1. Small size of the study groups;
2. The lack of placebo, double blind control;
3. In the morning group more patients smoked before PCI, the hs CRP were higher and the HDL cholesterol levels were lower, which could have modified the results. □

Effects of Morning vs. Evening Intake of Atorvastatin on Major Cardiac Event and Restenosis Rates in Patients Undergoing First Elective Percutaneous Coronary Intervention

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