Abstract:

OBJECTIVE: To determine whether there is a relationship between the circadian rhythm of acute myocardial infarction (AMI) in the morning hours and the sleep apnea syndrome (SAS).

PATIENTS AND METHODS: 203 patients who had sustained an AMI were examined 7-14 days later for sleep-associated breathing disorders using a 5-channel recording system. The diagnostic criterion for SAS was > 10 episodes of apnea and hypopnea per hour (AHI>10). 76 % of all patients were male, mean age 62 years.

RESULTS: SAS was diagnosed in 91 of the 203 patients (44.8 %). Compared to the 112 patients without SAS there were significantly more AMI in the morning hours (6:00 am to 12:00 am) in the SAS-group (49.5 %) than in the non-SAS-group (21.4 %). The two groups differed with regard to the symptoms of day-time sleepiness (29.7 % vs 17.0 %), age (mean 64.6 years vs 60.2 years), gender (83.5 % vs 69.9 % male) and smoking (33.0 % vs 51.8 %). There were no significant differences in Body mass index, hypertension, hyperlipoproteinemia, diabetes mellitus, family history, history of cardiovascular disease and taking of sedatives. CONCLUSION: The strong association between SAS and morning onset of AMI found in this study could be the result of a sympathetic stress reaction to the breathing disorder.