Introduction:
Delirium is a common complication on intensive care units. Data on incidence and especially on predictors of delirium in patients after acute myocardial infarction (MI) are rare. By analyzing all patients after acute MI, we aim to identify incidence and potential risk factors for delirium.

Methods:
In this retrospective study, all patients hospitalized for acute MI treated with coronary angiography in an university hospital in 2018 were included and analyzed. Incidence of Delirium within the first 5 days of care attributed to the MI and was defined by a NuDesc Score ≥2, which is taken as part of daily care three times a day by especially trained nurses. This research is authorized by ethics committee file number 387/19.

Results:
626 patients with acute MI (age 68.5±13.3 years, 260 STEMI, mortality 3.4%) were analyzed. Delirium occurred in 70 (11.2%) patients and was associated with a longer hospital stay (12±15.9d vs 5.5±4.3d, p<0.001). Patients with delirium were significantly older than patients without (76.3±11.14 vs. 67.5±13.10 years, p<0.001) and had more often preexisting neurological diseases (24.3% vs. 10.8%, p<0.001) and dementia (11.4% vs. 1.4%, p<0.001). Multivariate logistic regression analysis suggested that odds ratio for delirium was higher in patients after resuscitation OR 7.5 (95% CI 2.1-26.7), preexisting dementia OR 28.9 (CI 3.1-268) and in patients with alcohol abuse OR 18 (CI 2.7-120). While maximum lactate was also connected to delirium OR 1.4(CI 1.1-1.9), infarct size or type had no effect on the incidence of delirium.

Conclusion:
In patients with MI, delirium is frequent. Incidence is associated with clinical instability and preexisting neurological diseases rather than infarct size.