

**Visible Angiographic Complications Predict Short and Long-Term Outcomes in Patients with Post-Procedural Creatine-Phosphokinase Elevation.**

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**Objectives:** To assess whether visible angiographic complication is related to outcome in patients with elevated creatine phosphokinase (CK-MB) following percutaneous coronary intervention (PCI).

**Background:** Elevated biomarkers following PCI are associated with increased incidence of adverse events but the absolute risk of such events is low. A more specific marker of risk is needed.

**Methods:** Consecutive patients with elevated post-PCI CK-MB were divided into two groups according to presence (n=115, 43%) or absence (n=150, 57%) of angiographic complication. A control group (n=250) was randomly chosen from 2403 patients undergoing PCI during the same period without CK-MB elevation. Major adverse cardiac events (MACE) were assessed at 30 days and one year.

**Results:** Patients with identifiable angiographic complications and elevated post-procedural CK-MB had significantly worse outcomes at 30 days and one year compared with biomarker positive patients without identifiable complication and control patients (30 day MACE rate: 8% vs 0% vs 0.4% respectively,  $p < 0.001$ ; 1 year MACE rate: 26% vs 11% vs 11% respectively,  $p = 0.002$ , all  $p$ -values for angiographic complication vs no angiographic complication and for angiographic complication vs control). Biomarker positive patients without identifiable angiographic complication had an excellent short and long term outcome which was no different from biomarker negative patients (One year MACE rate: 11% vs 11%,  $p = 0.53$ ).

**Conclusion:** Post-PCI patients without visible angiographic complications have an excellent short and long term outcome and will probably not benefit from additional in-hospital monitoring. These findings call into question the need for routine CK-MB monitoring after PCI in the absence of clinical symptoms or angiographic complication.