

Hyperglycemia in the Cath Lab is related to Background Dysglycemia

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Introduction: Increased serum glucose concentrations during acute coronary syndromes (ACS) are associated with adverse clinical outcome. Most of the studies have explained this hyperglycemia due to acute stress reaction. Aim: We set out to examine the determinants of glucose levels in patients with and without diabetes and with and without ACS.

Methods and Results: We recruited 3998 consecutive patients from the TAPAS (Tel Aviv Prospective Angio Survey) registry. Arterial blood was obtained from all participants via their arterial access puncture sites as a part of the coronary angiography procedure. When we created a linear regression in order to assess which variables affect glucose levels in our cohort (see methods section for variables included), we found that HbA1c is the most significant variable ($\beta=0.62, p<0.0001$). ACS status had little effect on glucose or HbA1c levels ($\beta=0.04, p=0.02$). Furthermore, when we compared the effect of the metabolic syndrome and ACS on glucose levels, the metabolic syndrome was far more significant (figure 1)

Conclusions: Hyperglycemia during angiography should be attributed to chronic dysglycemia and might single out patients in need of treatment.

