Clinical characteristic of patients with cancer and acute coronary syndrome

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Background
The number of patients (pts) with cancer (ca) hospitalized on cardiology wards due to cardiovascular disorders has been increasing. The coexistence of ca complicates the course of acute coronary syndromes (ACS).

Purpose
The study aimed to compare clinical characteristic of ACS pts with (Group A) and without ca (Group B).

Methods
A total of 71 ca pts hospitalized due to ACS in 2015 in our institution were identified and included in the study. Their clinical characteristic was compared with a group of 304 randomly chosen ACS pts with no ca.

Results
Sixty seven (94,4%) pts had solid ca, others blood malignancies.
Eleven (15,5%) pts had advanced ca; 10 (14,1%) were subjected to chemotherapy and 14 (19,7%) to radiotherapy in the past; 4 experienced ACS during chemotherapy and 1 during radiotherapy.
Pts with ACS and ca were older (72vs.67); less frequently experienced STEMI (23vs.40% ); more often presented with dyspnoea (27vs.8%); hypotension (14vs.5%); less often with pain (80vs.94%); positive TnT (62vs.81%) and had lower TnT rise (1,0vs.1,9 ng/ml); dyslipidemia was diagnosed less frequently (57vs.84%) ($p < 0,05$). In both groups invasive approach was applied at the same rate but no significant changes in coronary arteries were present and only medical treatment was applied in ca pts more frequently (45vs.16%) ($p < 0,05$). Ca pts received DES (21vs.50%), were treated with clopidogrel (77vs.92%); beta-adrenolitics (77vs.89%); ACE/ARB (81vs92%); statins (84 vs. 97%) less frequently ($p < 0,05$). In ca pts LV was larger (5,1 vs. 4,8 cm) and HGB level was lower (12,6 vs. 13,8 g/dl). More pts with ca experienced bleedings (7% vs. 1%) and in-hospital death (9% vs. 2%) ($p < 0,05$). By univariate logistic regression analysis in-hospital death was associated in Group A with hypotension, left ventricle size, TnT level, GFR, AST and advanced cancer disease while in Group B with male sex, age, LVEF, LAVi (Left atrium Volume Index). By multivariate logistic analysis in Group A no parameter, and in Group B only bleeding (OR 54,0; 95CI 3,9-756,2) was independent predictor of in-hospital death.

Conclusion
Ca modifies the course of ACS, particularly in terms of clinical presentation, ACS treatment methods, rate of bleeding complications and in-hospital mortality.