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☆ **Spotlight on Special Topics**

CARDIOVASCULAR COMPLICATIONS IN HOSPITALIZED PATIENTS WITH SARS-COV-2 INFECTION AND HISTORY OF CANCER

Poster Contributions
Saturday, May 15, 2021, 2:45 p.m.-3:30 p.m.

Session Title: Spotlight on Special Topics: COVID 3
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Background: Patients with cancer may have increased mortality with COVID-19. The cardiovascular (CV) complications of COVID-19 in cancer patients have not been described. We examined CV outcomes and all-cause mortality among hospitalized patients with cancer and COVID-19.

Methods: The Brigham and Women's COVID-19 Registry prospectively enrolled 500 hospitalized patients with confirmed SARS-CoV-2 infection from March-May 2020. Adjudicated outcomes included all-cause mortality, CV events (acute coronary syndrome, myocarditis, arrhythmias, new heart failure), cardiac injury (troponin >99th percentile), and venous thromboembolism (VTE), during the index hospitalization. Regression and survival analyses were used to examine associations between cancer status and outcomes.

Results: In our study cohort, 101 patients had cancer (50% active cancer, 83% solid, 19% hematologic). Cancer patients were significantly older, had lower body mass index, had higher baseline prevalence of heart failure, stroke, chronic kidney disease/dialysis and smoking, and were more likely to be on baseline anticoagulation than those without cancer. Adjusted analyses showed no independent association between cancer and all-cause mortality, CV outcomes or VTE (all p>0.05, Table).

Table: Multivariable adjusted risk of key outcomes in hospitalized COVID-19 patients with a history of cancer compared to those without a history of cancer.

Outcome	Unadjusted incidence rate ratio (95% CI); cancer versus non-cancer patients	Adjusted odds ratio (95% CI); cancer versus non-cancer patients	p-value
In-hospital mortality*	1.33 (0.83-2.08)	1.78 (0.88-3.62)	0.11
Cardiovascular Event*	0.94 (0.57-1.49)	1.04 (0.59-1.80)	0.90
Cardiac injury*	1.03 (0.80-1.31)	1.05 (0.58-1.91)	0.87
VTE#	0.29 (0.12-0.61)	0.62 (0.29-1.33)	0.22
*Adjusted for age, sex, cardiovascular disease composite (hyperlipidemia, hypertension, congestive heart failure, diabetes and/or coronary artery disease), chronic kidney disease, body mass index			
#Adjusted for age, sex, cardiovascular disease composite (hyperlipidemia, hypertension, congestive heart failure, diabetes and/or coronary artery disease), chronic kidney disease, body mass index, baseline anticoagulation			

Conclusion: A history of cancer is not independently associated with mortality or short-term adverse CV outcomes among hospitalized COVID-19 patients. Longer term CV outcomes of COVID-19 in cancer patients need further evaluation.