

LBA71

Systemic cancer treatment-related outcomes in patients with SARS-CoV-2 infection: A CCC19 registry analysis

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Background

SARS-CoV-2 is associated with diverse clinical presentations ranging from asymptomatic infection to lethal complications. Small studies have suggested inferior outcomes in patients (pts) on active cancer treatment. This finding was not independently validated in our prior report on 928 pts, which included treatments administered within 4 weeks of COVID-19 diagnosis. Here, we examine outcomes related to systemic cancer treatment within one year of lab-confirmed SARS-CoV-2 infection in an expanded cohort.

Methods

The COVID-19 and Cancer Consortium (CCC19) registry (NCT04354701) was queried for pts ever receiving systemic treatment. Treatment type, cancer type, stage, and COVID-19 outcomes were examined. Pts were stratified by time from last treatment administration: <2 wk, 2-4 wk, 1-3 mo, or 3-12 mo. Standardized incidence ratios (SIR) of mortality by treatment type and timing were calculated.

Results

As of 31 July 2020, we analyzed 3920 pts; 42% received systemic anti-cancer treatment within 12 mo (Table). 159 distinct medications were administered. The highest rate of COVID-19-associated complications were observed in pts treated within 1-3 months prior to COVID-19; all-cause mortality in this group was 26%. 30-day mortality by most recent treatment type was 20% for chemotherapy, 18% for immunotherapy, 17% for chemoradiotherapy, 29% for chemoimmunotherapy, 20% for targeted therapy, and 11% for endocrine therapy. SIR of mortality was highest for chemoimmunotherapy or chemotherapy <2 wks, and lowest for endocrine treatments. A high SIR was also found for targeted agents within 3-12 mo. Pts untreated in the year prior to COVID-19 diagnosis had a mortality of 14%. Table: LBA71

	Most recent treatment before COVID-19			
	<2 wk	2-4 wk	1-3 mo	3-12 mo
Total, n	915	298	230	143
Total deaths, %	16	16	26	17
Treatment Type, %				
Chemo	30	46	44	45
Immuno (IO)	7	18	8	10
Chemo-IO	2	6	4	*
Targeted	39	32	35	25
Endocrine	32	13	19	14
Cancer Type, %				
Solid tumor	63	68	63	59
Hematologic	26	18	24	25
Complications, %				

	Most recent treatment before COVID-19			
	<2 wk	2-4 wk	1-3 mo	3-12 mo
Hospitalized	54	54	61	57
O2 required	41	43	45	41
ICU	14	16	17	13
Mech. ventilation	10	11	13	10
SIR Mortality (95% CI)				
Chemo	1.31 (1.00-1.69)	1.18 (0.77-1.73)	0.92 (0.59-1.36)	0.92 (0.44-1.69)
IO	1.03 (0.51-1.85)	1.02 (0.46-1.93) *		*
Chemo-IO	2.22 (0.95-4.37) *		*	*
Targeted	0.98 (0.74-1.27)	0.97 (0.54-1.60)	1.41 (0.95-2.03)	2.15 (1.14-3.68)
Endocrine	0.62 (0.42-0.88) *		0.73 (0.31-1.43) *	

* Absolute number of pts <5.

Conclusions

30-day mortality was highest amongst cancer pts treated 1-3 months prior to COVID-19 diagnosis and those treated with chemoimmunotherapy. Except for endocrine therapy, mortality for subgroups was numerically higher than in pts untreated within a year prior to COVID-19 diagnosis.

Clinical trial identification

NCT04354701.

Legal entity responsible for the study

The COVID-19 and Cancer Consortium (CCC19).

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