



# 1568P-Clinical and Laboratory Outcomes of the Solid Cancer Patients Reinfected with SARS-CoV-2

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## INTRODUCTION

The increasing number of cases and fluctuating course of COVID-19 infection continues. Despite the fact that reinfection is not definitely established, recurrence of the infection has been increasingly reported. Immunocompromised patients may be more susceptible to SARS CoV-2 re-infection, virus reactivation, or recurrent viremia due to impaired immune responses to the virus. In this article, we aimed to evaluate the outcomes of solid cancer patients who were reinfected with COVID-19.

## PATIENTS & METHODS

The study was conducted in two centers. Between June and December 2020, patients with a diagnosis of solid cancer over the age of 18 were screened. The study is based on SARS-CoV-2 PCR positivity. Patients with delayed PCR positivity were excluded from the study.

## RESULTS

1024 patients with total SARS-CoV-2 PCR positive solid malignancy were screened. 32 patients who met the inclusion criteria were included in the study. The median time between the first COVID-19 infection and reinfection was 46 (30-194) days. The reinfection rate was 3.1%. The most common cancer subtype was lung cancer. Mortality rate of reinfection in patients with solid cancer was 34.3% (n=11). Ferritin and creatinine values of serum parameters in reinfection were found to be significantly higher compared to the first infection, respectively (p:0.015, p:0.014) (Table 1). Nine patients with only 1 comorbidity had higher mortality (p= 0.052) (Table 2). The patients were followed up in the intensive care unit for a longer period of time for reinfection and the number of patients followed in the intensive care unit for reinfection was significantly higher (p:0.002). The mortality rate in 8 patients using antiaggregant or anticoagulant for a long time was not statistically different from the group that did not use it (p:0.681) (Table 2).

Table 1. Comparison of the laboratory parameters of the first COVID-19 infection and reinfection

Parameters	Results		P value
	First COVID-19 Infection	Reinfection	
D-Dimer (µg/mL)	1.4 (0.32-11.5)	1.88 (0.26-16.23)	0.118
Procalcitonin (ng/mL)	0.3 (0.02-2.06)	0,4 (0,03-8,97)	0.070
Ferritin (ng/mL)	243.5 (10-4499)	512,5 (65-2800)	<b>0.015</b>
Leukocyte ( x10 <sup>3</sup> /µL)	7.48 (3.1-27.33)	8.62 (2.15-51,74)	0.207
Creatinine (mg/dL)	0.8 (0.39-3,45)	0.94 (0.28-2.33)	<b>0.014</b>

Table 2. Statistical analysis of mortality and some clinical parameters

Parameters		Died (n=11) n (%)	Alive (n=21) n (%)	P/χ <sup>2</sup> value
Diagnosis	Lung Cancer	5 (45.5)	4 (19)	p= 0,213
	Others	6 (54.5)	17 (81)	
Comorbid disease	No	3(27,3)	9 (42.9)	χ <sup>2</sup> = 5,906 p= 0,052
	1	6 (54.5)	3 (14.2)	
	≥2	2 (18.2)	9 (42.9)	
Chronic anticoagulant or antiaggregant use	Yes	2 (18.2)	6 (28.6)	p= 0,681
	No	9 (81.8)	15 (71.4)	
Time from last chemotherapy to re-infection positivity	< 1 month	4 (36.4)	7 (33.3)	χ <sup>2</sup> =0,135 p= 0,935
	1-3 months	2 (18.2)	5 (23.8)	
	> 3 months	5 (45.4)	9 (42.9)	

## CONCLUSION

We have reported that solid cancer patients have a higher mortality rate in COVID-19 reinfection. We found that the reinfection rate was 3.1%. This study gives one of first preliminary clinical results of COVID-19 reinfection in solid cancer patients.