

# Improved cancer treatment response in those with COVID vaccination

In a recent paper which yielded an unexpected result, researchers penned a letter to the editor of the journal *Annals of Oncology* describing the results (Figure 1). In this study, medications that stimulate the body's defenses against the tumor are frequently given to individuals with nasopharyngeal cancer. The study found that when patients received the Chinese vaccine SinoVac instead of being unvaccinated, the cancer medications performed better.

Items	Vaccinated n = 335 n (%)	Non-vaccinated n = 1188 n (%)	P value
Age, years	47.1 ± 11.6	44.7 ± 11.7	0.300
BMI, kg/m <sup>2</sup>	23.3 ± 3.19	23.0 ± 3.17	0.802
KPS	86.7 ± 3.98	86.5 ± 4.38	0.688
Gender			0.619
Male	288 (77.2)	882 (74.8)	
Female	45 (12.8)	242 (20.2)	
Comorbidity			0.936
Infection	37 (9.8)	132 (11.2)	
Hypertension	37 (9.8)	108 (9.3)	
Hepatitis	38 (11.4)	103 (8.8)	
Tuberculosis	6 (1.8)	17 (1.5)	
Others	21 (5.8)	58 (5.0)	
Side effect of vaccination			
Muscle pain	30 (8.8)	—	
Allergy	28 (7.8)	—	
Fever	20 (5.8)	—	
Nausea	15 (4.3)	—	
Headache	10 (2.7)	—	
Others	17 (4.8)	—	
Treatment			<0.001
CR (complete remission)	21 (5.8)	118 (10.0)	
PR (partial remission)	109 (30.8)	198 (16.7)	
SD (stable disease)	309 (79.2)	417 (35.0)	
PD (progressive disease)	40 (11.3)	295 (25.0)	
ORR	290 (88.8)	412 (35.0)	<0.001
DCR	299 (89.2)	409 (34.5)	0.001
Duration	136.5 ± 134.4	211.9 ± 201.2	<0.001
Grade	4.8 ± 3.4	11.0 ± 9.6	<0.001
immune-related adverse effects	217 (75.4)	665 (56.2)	<0.001
ICD3P	112 (38.8)	312 (26.8)	
Hepatitis	136 (38.5)	138 (11.6)	
Hypertension	80 (22.2)	219 (18.5)	
Others	39 (11.3)	120 (10.2)	
Anti PD-1 agent			<0.001
Toripalimab	149 (38.8)	389 (32.8)	
Camelidumab	346 (84.4)	927 (77.8)	0.001
Sintilimab	7 (1.8)	15 (1.3)	0.001
Tislelizumab	1 (0.3)	18 (1.5)	0.117
Pembrolizumab	1 (0.3)	4 (0.3)	0.800
Nivolumab	0 (0.0)	8 (0.7)	0.578
Combined chemotherapy	346 (93.3)	1115 (93.8)	0.020

BMI, Body mass index; DCR, Disease control rate; KPS, Karnofsky performance status; NPC, nasopharyngeal cancer; ORR, objective response rate; PD-1, programmed cell death protein 1; ICD3P, Invasive cutaneous capillary endothelial proliferation.

**Table 1. Clinical and demographic characteristics of the NPC patient cohort.**

Numerous cancer cells can interfere with the immune system's

reaction. They achieve this by activating the PD-1 receptor, which acts as a type of button on immune cells. They successfully disabled these endogenous defense mechanisms in this manner. PD-1 receptors can be blocked using medications. As a result, the immune system can combat the tumor more successfully. The PD-1 receptor is involved in the immunological response that is triggered by the Covid vaccine.

*A portion of the 373 afflicted people had received the Chinese Covid vaccination SinoVac. They reacted to anti-PD-1 treatment better than the individuals who were not immunized.*

**Journal article: Y.J. Hua, Y.J., et al., 2022. [Y.L. Potentially improved response of COVID-19 vaccinated nasopharyngeal cancer patients to combination therapy with anti-PD-1 blockade and chemotherapy.](#) *Annals of Oncology.***

*Summary by Stefan Botha*