

▼ [Efficacy of Immunosuppressive Chemotherapy in Glioblastoma: A Systematic Review and Meta-Analysis](#) (2018) 4(6):114-124 (2019) 6(6):119-130

Abstract

Efficacy (EA) of immunosuppressive chemotherapy in glioblastoma (GB) is still unclear. A systematic review and meta-analysis were conducted to evaluate the EA of immunosuppressive chemotherapy in GB. The search was performed in PubMed, Embase, and Cochrane. The primary outcome was the overall survival (OS) of patients with GB. The secondary outcome was the quality of life (QoL) of patients with GB. The results showed that the EA of immunosuppressive chemotherapy in GB was significantly higher than that of the control group (P < 0.05). The OS of patients with GB was significantly higher in the immunosuppressive chemotherapy group than in the control group (P < 0.05). The QoL of patients with GB was significantly higher in the immunosuppressive chemotherapy group than in the control group (P < 0.05). The results of this meta-analysis suggest that immunosuppressive chemotherapy is an effective treatment for GB. The OS and QoL of patients with GB were significantly higher in the immunosuppressive chemotherapy group than in the control group. The results of this meta-analysis suggest that immunosuppressive chemotherapy is an effective treatment for GB. The OS and QoL of patients with GB were significantly higher in the immunosuppressive chemotherapy group than in the control group. The results of this meta-analysis suggest that immunosuppressive chemotherapy is an effective treatment for GB. The OS and QoL of patients with GB were significantly higher in the immunosuppressive chemotherapy group than in the control group.

96% (10<sup>6</sup> cells/ml) EA, 5% (10<sup>6</sup> cells/ml) EA, 20% (10<sup>6</sup> cells/ml) EA, 2-4% (10<sup>6</sup> cells/ml) EA, 3% (10<sup>6</sup> cells/ml) EA, 5% (10<sup>6</sup> cells/ml) EA, 450% (10<sup>6</sup> cells/ml) EA, ELI, A, ...

A, ... 0.4, B, C (4, 10% C), 0.4, C, L, (100, 10%), A, (1, 0.5, 10% C), I, 0.4, B, C (4, 10% C), 0.4, C, EA, ... D, 10, 24, 3% C, 5% C, A, 450, 10, 7% C, ...

C, ... E, IL-1, IL-6, IF, IL-2, IL-10, IL-1, ELI, A, (B, I, C, CA), 15, IL-6, 30, ...

A, ... (C), EA, B, C, A, 9.4, EA, <0.05, E, ...

A, ... I, B, C, 24, 10, 20, EA, (F<sub>2,10</sub>=8.22, =0.0077), EA, 20, 29% (=0.015), 24, H, -29, K, EA, 5, 20, (F<sub>3,24</sub>=2.09, =0.128, F<sub>3,24</sub>=2.3, =0.108, ... 1).

A, ... 24, B, C, EA, (>0.1, ... 2, 3).

A, ... L, E, 24, EA, (F<sub>3,15</sub>=1.84, =0.183). L, IL-1, IL-6, IL-10, IL-1, IF, (, )6 (5, ... E, ...

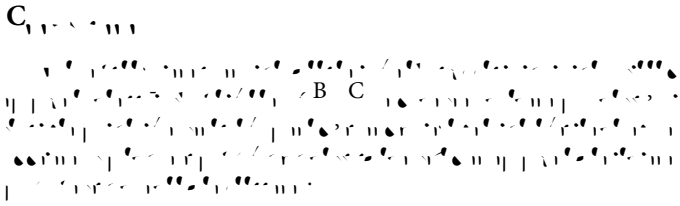
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EA $\mu$ g/ml	HT-29-induced (n=6)		RKO-induced (n=6)		HT-29-induced (n=6)		RKO-induced (n=6)	
	Mean $\pm$ SEM	P*	Mean $\pm$ SEM	P*	Mean $\pm$ SEM	P*	Mean $\pm$ SEM	P*
	HT-29-induced							
0			7.40 $\pm$ 0.47		27.44 $\pm$ 3.32			
5		NS		0.002		0.02	2.00 $\pm$ 0.32	NS
10	0.57 $\pm$ 0.07	NS	5.75 $\pm$ 0.49	<0.001		0.013	1.82 $\pm$ 0.23	NS
20			3.47 $\pm$ 0.29	<0.001	13.39 $\pm$ 2.31	<0.001		0.049
	RKO-induced							
0	0.58 $\pm$ 0.09		5.54 $\pm$ 0.70					
5		NS	5.57 $\pm$ 0.90	NS		0.004	2.99 $\pm$ 0.40	NS
10		NS	4.12 $\pm$ 0.44	0.018	23.40 $\pm$ 3.32	0.03	3.41 $\pm$ 0.43	NS
20	0.47 $\pm$ 0.08	0.047	2.50 $\pm$ 0.44	0.001		<0.001		NS

Note: PBMC were incubated for 24 hrs with HT-29 or RKO colon cancer cells in the absence (0) or the presence of EA at concentrations as indicated. The level of cytokines was measured by ELISA.

Table 4: Cytokine levels in PBMC incubated with HT-29 or RKO cells and EA.

EA $\mu$ g/ml	HT-29-induced (n=6)	RKO-induced (n=6)	HT-29-induced (n=6)	RKO-induced (n=6)
0				
5				
10				
20				



**Acknowledgement**

The authors thank to Ms. Tzippy Shochat, MSc, Statistical Consultant, Rabin Medical Center, Beilinson Hospital, for her indispensable help in the statistical calculations.

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7. D 7E77 TE D7OC7EH E BI 7 CE EK HD D7OC7EDD 7D H EI EB EB
8. AE E D7OC7ED7 7D H EBH 7B7D HD D7OC7EH E BI 7 HBED7OC7ED C IEB 7HD I Liver Physiol 287: G7-17.
9. HD7BI 7E7 BC I EBH 7B7D HD D7OC7EH E BI 7 CEB HIA7 EB C 7DQ EK carcinogenesis and prevention strategies. *Anticancer Res* 29: 2727-2737.
10. H1 HH D7OC7ED7 EBH 7B7D H III D Pharmacol 9: 405-410.
11. 7 7OE HD H7 DHI KH DHH7 CB ED H ED E C7HE 7 I7< CEHE 7D H I
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17. E ED EE D 7D7 7DBI7D D HE7D D7OC7EH < IE 7B7 B 7 7D GH DHC radix sanguisorbae. *Pharmacogen Mag* 12: 104-108.
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20. IIBH 7B 7CD CE I CCD HEI 7A DOED B7HD EBD 7HDC7 B EB EB H77
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