

CD69 A>G (RS11052877) GENETIC POLYMORPHISM ON THE RESPONSE OF TOCILIZUMAB IN RHEUMATOID ARTHRITIS PATIENTS.

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Objectives: CD69 receptor is a C-lectine transmembrane protein expressed by T, B and Natural Killer (NK) cells. This receptor is involved on the production and regulation of these cells and are involved in Interleukin-6 (IL-6) production.

Interleukin 6 (IL-6) is a multifunctional glycoprotein involved in immune response, inflammation and bone metabolism; IL-6 makes significant contributions to such autoimmune and inflammatory diseases as rheumatoid arthritis (RA).

→ *The aim of this study is evaluate the role of CD69 A>G (rs11052877) genetic polymorphism on the response of Tocilizumab in RA patients.*

Methods: The CD69 A>G (rs11052877) genetic polymorphism was genotyped using predesigned **TaqMan®** genotyping assays technology and analyzed on a ViiA7® Real-time PCR system. Clinical response was evaluated **at 3, 6, 9 and 12 months** after the first infusion of the drug with the use of the 28-joint disease activity score criteria (**DAS28**) and good responders were classified **according to EULAR criteria**.

→ *EULAR good response was defined as a change of DAS28 > 1.2 and DAS28 ≤ 3.2.*

RESULTS

CD69 A>G vs EULAR Good Response

		RESPONDERS NO n(%)	RESPONDERS YES n(%)	OR (95% C.I.)	P-value
3 months N=124	G/G	8 (11.9)	12 (21.1)	1.97 (0.74-5.21)	0.17
	A/G or A/A	59 (88.1)	45 (79)		
6 months N=142	G/G	6 (10.9)	16 (18.4)	1.84 (0.67-5.03)	0.22
	A/G or A/A	49 (89.1)	71 (81.6)		
9 months N=120	G/G	5 (12.8)	16 (19.8)	1.67 (0.56-4.96)	0.34
	A/G or A/A	34 (87.2)	65 (80.2)		
12 months N=139	G/G	2 (6.1)	18 (17)	3.17 (0.70-14.45)	0.09
	A/G or A/A	31 (93.9)	88 (83)		



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CONCLUSIONS:

These results show that CD69 A>G (rs11052877) genetic polymorphism by itself is not useful as a predictor of Tocilizumab response in R.A. patients but its influence should be further studied.