

Video abstract transcript**Immune Response to SARS-CoV-2 Third Vaccine in Patients With Rheumatoid Arthritis Who Had No Seroconversion After Primary 2-Dose Regimen With Inactivated or Vector-Based Vaccines**

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Slide 1:

My name is Carolina Isnardi and I am one of the authors of the study Immune response to SARS-CoV-2 third vaccine in patients with rheumatoid arthritis who had no seroconversion after primary two-dose regimen with inactivated or vector-based vaccines published in December 2022 in the Journal of Rheumatology.

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The aim of our study was to assess the immune response after a third dose of SARS-CoV-2 vaccine in patients with rheumatoid arthritis with undetectable antibodies titers after the primary regimen of two doses.

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Patients older than 18 years old with rheumatoid arthritis from two rheumatology centers from Argentina, who had no seroconversion after two doses of SARS-CoV-2 vaccine and received a third dose of either mRNA or vector-based vaccine were included. Patients' blood samples were taken between 21 and 40 days after the third dose. Anti-SARS-CoV-2 IgG antibodies, neutralizing activity and T cell responses were assessed.

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A total of 21 non-responder patients were included. All of them were women. At vaccination time, 29% were receiving glucocorticoids, 85% biologic DMARDs, including 6 abatacept and 4 rituximab. Regarding the primary vaccination regimen, 61.9% received two doses of BBIBP-CorV, 14.3% Gam-COVID-Vac, 14.3% ChAdOx1 nCoV-19 and 9.5% a mix regimen of Gam-COVID-Vac/mRNA-1273. As the third dose, the majority received BNT162b2 vaccine and only one of them ChAdOx1 nCoV-19. All of them mixed regimens, with a median time between the second and third dose of 180.0 days.

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After the third dose, 90.5% of the patients presented detectable anti-SARS-CoV-2 IgG. The frequency of antibodies development was comparable between groups, but as you can see it was slightly lower in those receiving rituximab.

Slide 6:

76.2% developed neutralizing activity. Compared to other treatments, abatacept and rituximab were associated with the absence of neutralizing activity and lower titers of neutralizing antibodies.

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Specific T-cell response was detected 71.4% after the third dose. The use of abatacept was associated with a lower frequency of T-cell response.

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Finally, I want to thank all the groups that collaborated in carrying out our study.

Slide 9:

Thank you for your interest in our study and we invite you to read the entire paper in the Journal of Rheumatology web site.