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Sars-Cov-2 Infection After Vaccination In Patients With Rheumatic Diseases In Argentina

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Objectives To compare clinical characteristics of COVID-19 infection in patients with rheumatic diseases (RD) with and without SARS-CoV2 vaccine, and additionally to identify poor prognostic factors.

Methods Adult patients with a RD, vaccinated for SARS-CoV-2 were consecutively included between June 1st and December 21st, 2021 in the SAR-COVAC registry. SARS-CoV-2 infection was confirmed by RT-PCR o serology . Infection after an incomplete scheme was defined when the event was diagnosed at least 14 days after first dose; and after a complete scheme when it occurred > 14 days after the second dose. Patients with previous SARS-CoV-2 infection were excluded. Patients were matched in a 2:1 ratio with a non-vaccinated group selected from the SAR-COVID registry that includes patients with RD and SAR-CoV-2 infection.

A WHO-Ordinal Scale (WHO-OS) ≥5 identified patients with unfavorable COVID-19 outcome.

Descriptive statics, Chi2 test, Fischer test, T test and ANOVA were used.

Results A total of 1350 patients from the SAR COVAC registry were included, 67 (5%) presented SARS-CoV-2 infection after vaccination, mostly (72%) females with a mean age of 57 (SD 15) years old. Most frequent RD were rheumatoid arthritis (41%), psoriatic arthritis (12%) and systemic lupus erythematosus (10%). At vaccination, most had low disease activity (75%) or were in remission, 19% were on steroids, 39% methotrexate, 27% bDMARDs and 6% JAK inhibitors.

A total of 11 (16%) patients had SARS-CoV-2 infection <14 days after the first vaccine dose, 39 (58%) after an incomplete scheme and 17 (25 %) following a complete one.

Only 8 vaccinated patients (12%) had an unfavorable COVID course; 7 (88%) had incomplete schemes (5 Gam-COVID-Vac, 1 ChAdOx1 nCov-19 and 1 BBIBP-CorV) and one patient 2 doses of Gam-COVID-Vac. Unfavorable outcome was associated with male gender [63% vs 24%, p=0.036], older age [mean 70 years (SD 7) vs 55 years (SD 15), p=0.005], Caucasian [100% vs 54%, p=0.018], more years of schooling [mean 17 years (SD 4) vs 12 years (SD 4), p=0.010], comorbidities [100% vs 39%, p=0.001, pulmonary disease [37% vs 5%, p=0.019], dyslipidemia [63% vs 17%, p=0.011] and arterial hypertension [63% vs 24%, p=0.036].

Patients with at least one vaccine dose had less frequently severe COVID-19 (12% vs 24%, p=0.067) and lower mortality rate (3% vs 6%, p=0.498).

Conclusion Only 5% of patients with RD vaccinated for SARS-CoV2 had COVID-19, most mild and 25% were diagnosed after completing the scheme