



Multicenter Study to Evaluate the Impact of Vaccination Against SARS-CoV-2 and/or COVID-19 in the Clinical Course of Patients with IgA Nephropathy

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Aim of the study

To evaluate:

- The frequency of adverse events (AE) from SARS-CoV-2 vaccination in patients with IgAN
- The most common AE in this group
- The incidence of relapse after vaccination
- The clinical course and outcome of COVID-19
- The incidence of relapse after COVID-19

Methods I

- Multicentre, retrospective study

Inclusion criteria:

1. Biopsy-proven IgAN
 2. >1 vaccine dose against SARS-CoV-2
- and/or
3. COVID-19

Exclusion criteria

1. ESKD prior to vaccination/infection
2. Patients with first IgAN diagnosis after vaccination

Methods II

Records:

- Demographics
- Histopathological diagnosis
- Immunosuppressive Regimens
- Outcome of IgAN
- Vaccination type, number of doses and timing
- Adverse Events of vaccination
- Potential effect of vaccination on the clinical course of IgAN
- Outcome of COVID-19

IgAN: definitions

Remission: proteinuria $<1\text{g}/24\text{h}$, no hematuria

Relapse: proteinuria $>1\text{g}/24\text{h}$, eGFR impairment

Cohort characteristics I

Parameter	N = 51 patients
Age at diagnosis, years (SD)	46,5 (16,58)
Gender, male	30 (58,8%)
Time from diagnosis, months (SD)	80,27 (71,5)
Induction therapy:	
Glucocorticoids	24 (47%)
Calcineurin Inhibitors and glucocorticoids	2 (3,9%)
Other (CYC, RTX, MMF)	1 (1,9%)
1 st Outcome of IgAN:	
Complete remission	41 (80,4%)
Relapse	10 (19,6%)

Cohort characteristics II

Parameter	N = 51 patients
Vaccination against SARS-CoV-2	41 (80.4%)
COVID-19	37 (72.5%)
Number of doses received, mean (SD)	3 (0.75)
Time from diagnosis to vaccination, months (SD)	65.9 (77.7)
Immunosuppressive therapy at vaccination	8 (19,5%)
Glucocorticoids	7 (87,5%)
Calcineurin Inhibitors	1 (12,5%)

Post vaccination adverse events

Adverse events	N = 41
Systematic	6 (14.6%)
- Headache	4 (9.6%)
- Fever	4 (9.6%)
- Myalgias	2 (4.8%)
- Fatigue	2 (4.8%)
Local (Pain, pruritus, other)	11 (26.8%)

Patients with IgAN and COVID-19

Parameter	N
Patients with COVID-19	37
Vaccinated	27* (72.9%)
Unvaccinated	10** (27.1%)
Hospital admissions for COVID-19 disease	1 (2.7%)
Outcome of COVID-19	
Complete recovery	37 (100%)
ICU admission	0
Death	0
IgAN relapse after COVID-19	1 (2.7%)
Time from infection to relapse, months	3.5
IgAN relapse after vaccination	7 (17%)
Time from vaccination (1 st dose) to relapse, months	6.8

**3 patients, all of which vaccinated, were under immunosuppressive therapy*

***100% of unvaccinated patients was infected by SARS-Cov-2*

Conclusions

- Vaccination against SARS-CoV-2 appears safe for patients with IgAN
- The majority of patients who were infected had an uncomplicated outcome
- Neither COVID-19 nor SARS-CoV-2 vaccination was associated with disease relapse