



# The effect of covid-19 infection on antibody levels in vaccinated patients on HD: a clinical study.

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**Declaration of interests**

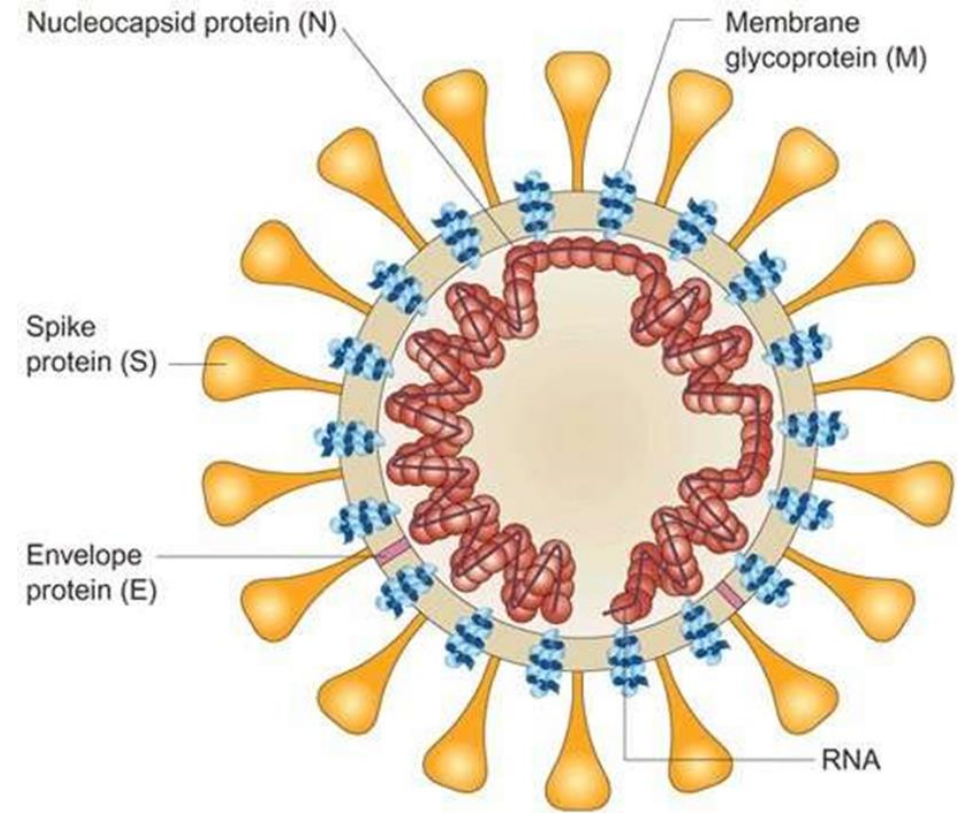
**There are no conflicting interests in this speech**



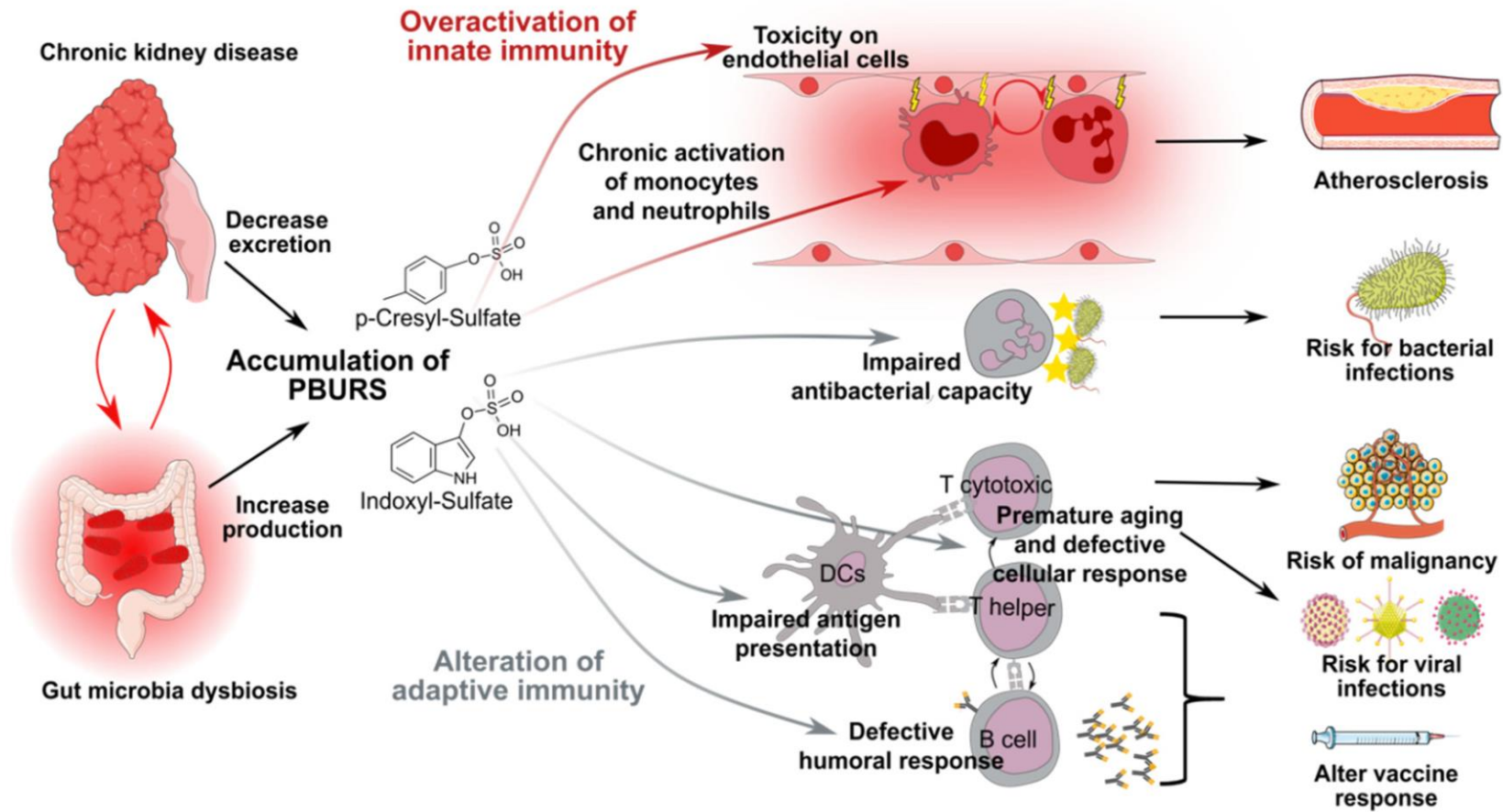
# COVID-19 disease

- 2019, Wuhan, China
- Severe acute respiratory syndrome coronavirus 2 (**SARS-CoV-2**)

- ✓ Medium-sized, large mRNA genome
- ✓ Encased in nucleocapsid
- ✓ Lipid bilayer
- ✓ Glycoprotein **Spike** (S) Peptomer
- ✓ Spikes allow it to attach to human cell receptors in upper or lower airway



# Immune system on CKD



Chronic Kidney Disease-Associated Immune Dysfunctions: Impact of Protein-Bound Uremic Retention Solutes on Immune Cells

## Patients and methods

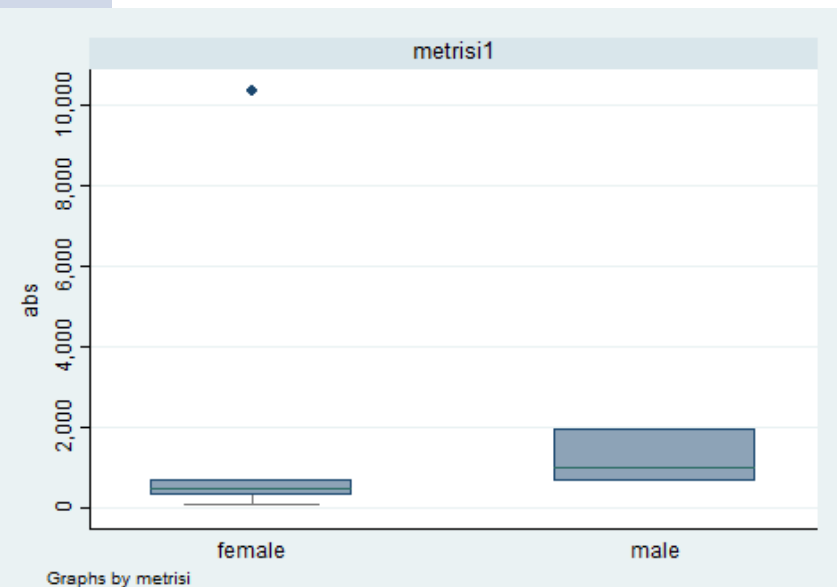
- 12 patients, 5 women and 7 men.
  - Average age **71.2** ± 9.83.
  - No statistically significant difference ( $p=0,66$ ) in the mean age of men and women (female  $69.6 \pm 9.23$  vs male  $72.2 \pm 10.8$ ).
  - 8 of them (**66.7%**) were infected from SARS-COV2 virus.
- ✓ Participants were recruited following any COVID-19 vaccine dose and have been blood sampled for serological testing at **3 measurements**.



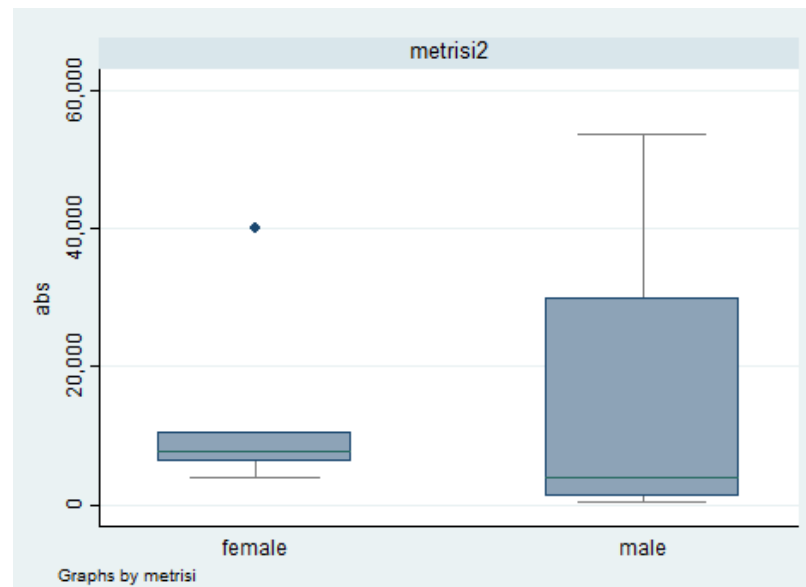
# Results

- Statistically significant difference between the 1st and 2nd measurement ( $p=0.0124$ ) as well as the 1st and 3rd measurement ( $p=0.0048$ ) but not between the 2nd and 3rd measurement ( $p=0.72$ )
- No statistically significant difference in any measurement period between men and women (1st:  $p=0.29$ , 2nd:  $p=0.32$ , 3rd:  $p=0.46$ ).

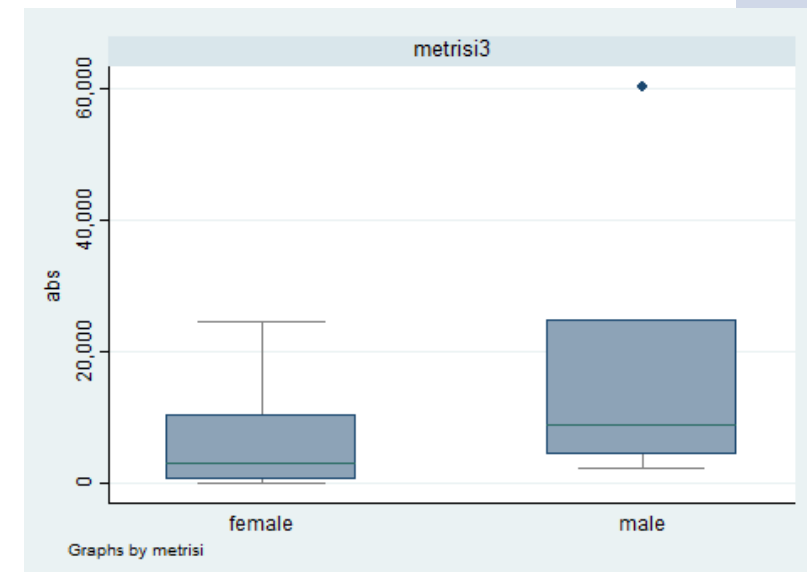
1st measurement



2nd measurement

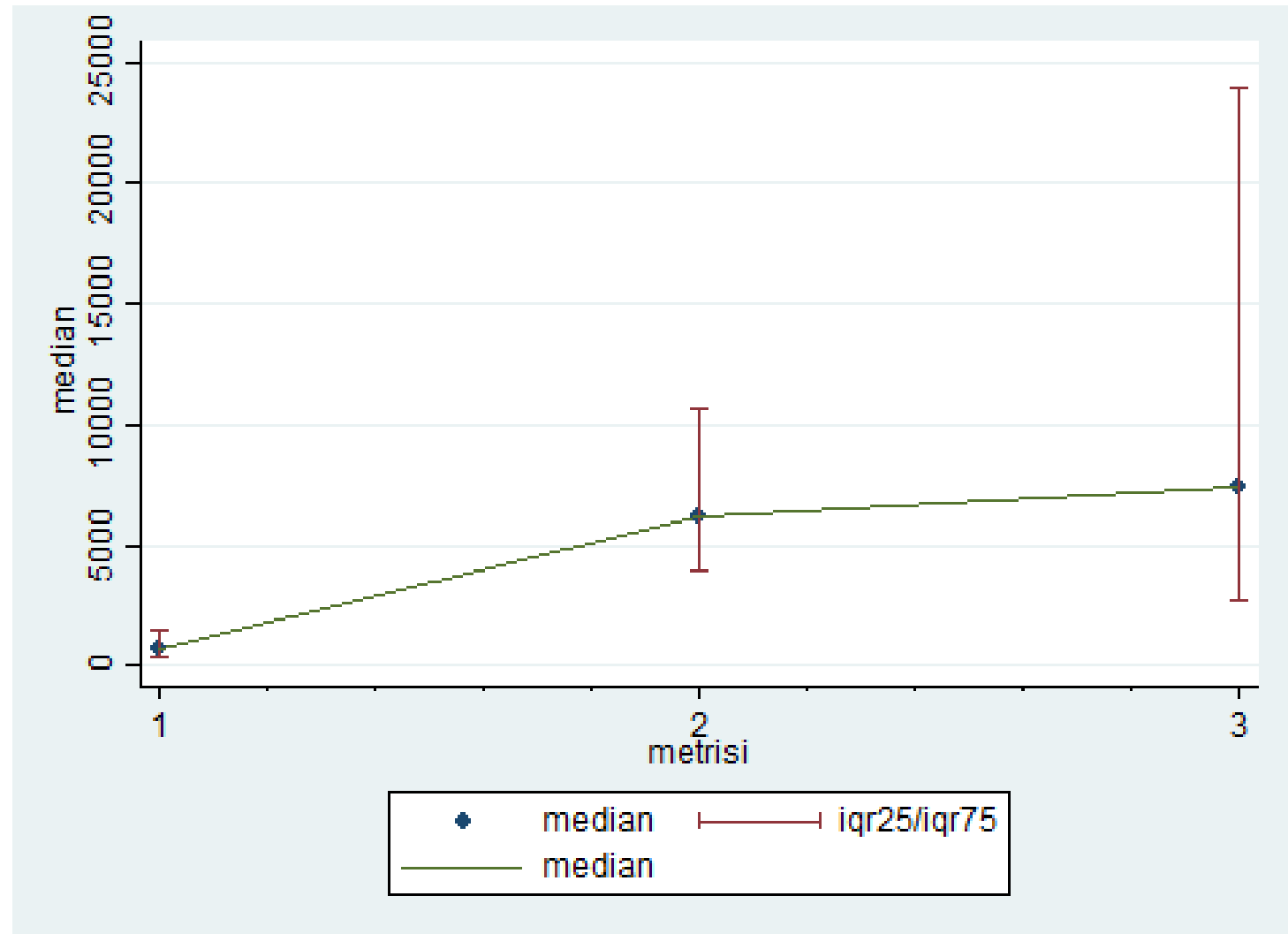


3rd measurement



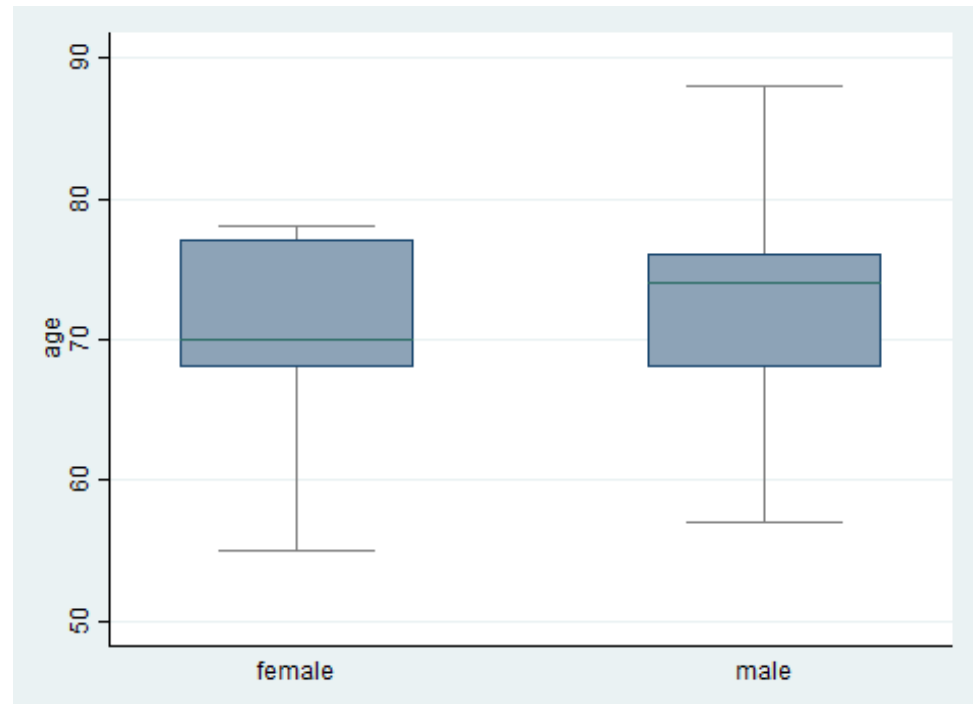
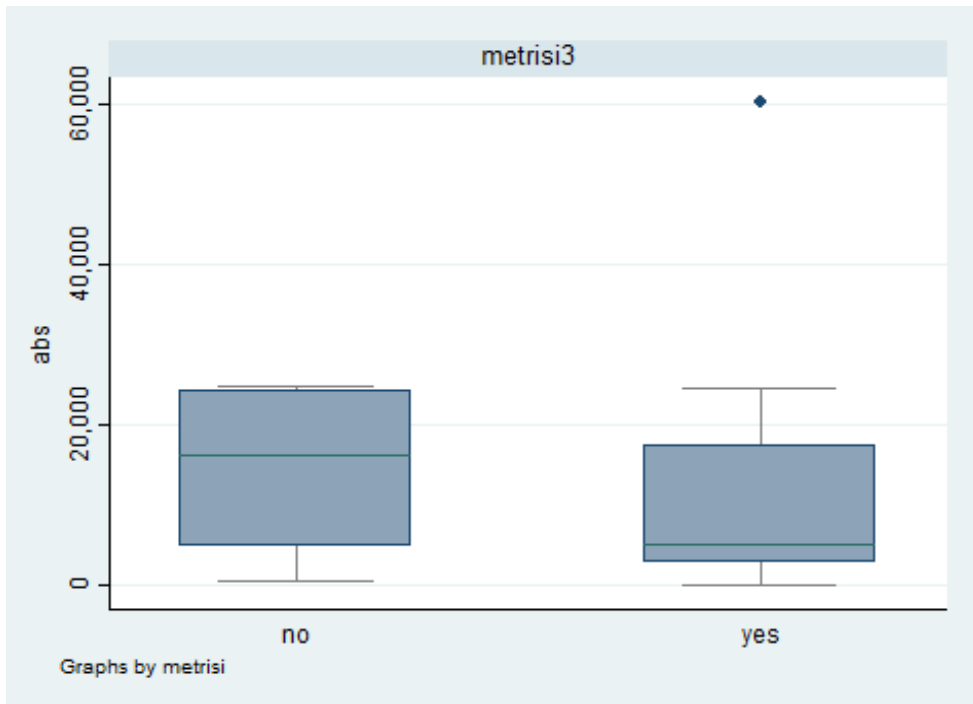
# Results

- A gradual increase in abs levels was found in the 3 measurements and the difference was statistically significant ( $p=0.0091$ )



No statistically difference between those who got infected and those who didn't (p=0.73)

No correlation of antibody levels with age was found





A petri dish containing a bacterial culture on a yellow agar medium. The culture shows several distinct colonies, some of which are arranged in a grid-like pattern. The dish is held by a person wearing blue gloves.

## Conclusions

Covid-19 infection in vaccinated patients under HD appears to have no effect on antibody levels.

No increase in antibody levels was observed after the third dose.





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**THANK YOU FOR YOUR ATTENTION**