A longitudinal study of SARS-CoV-2 infected patients shows high correlation between neutralizing antibodies and COVID-19 severity

Short title

Neutralizing antibodies and COVID-19 severity

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Funding

The laboratory of FLC received financial support from the LabEx Ecofect (ANR-11-LABX-0048) of the ''Université de Lyon", within the program ''Investissements d'Avenir" (ANR-11-IDEX-0007) operated by the French National Research Agency (ANR), the ANR (grant from RA-Covid-19), the Fondation pour la Recherche Médicale (FRM), and Inserm Transfert.

Conflict of Interest disclosure statement

The authors have declared that no competing interests exist.

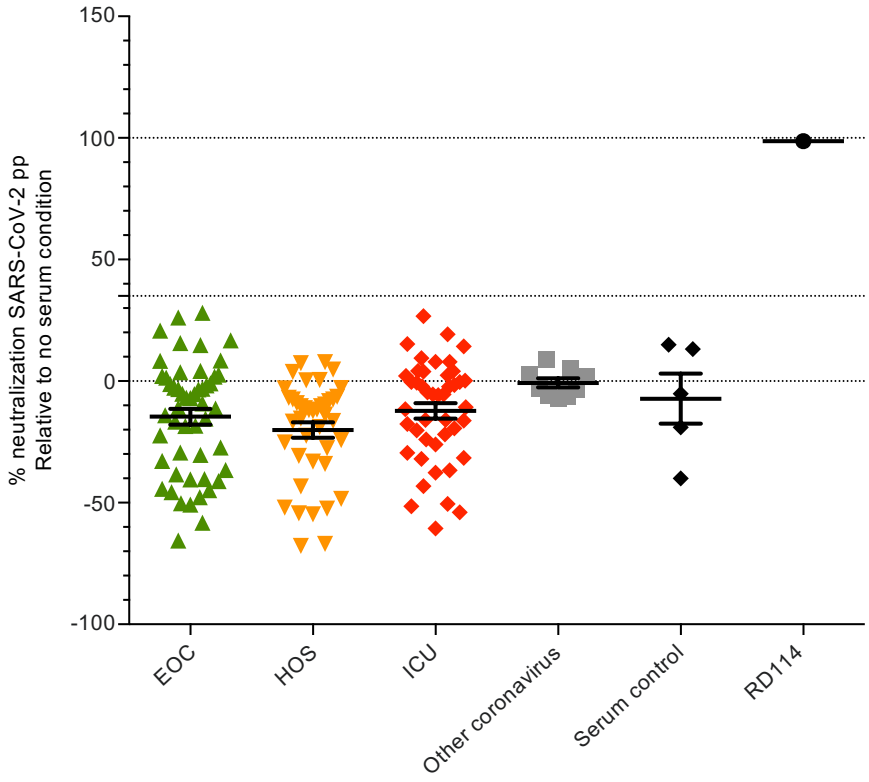
Supplemental Figure Legends

Supplemental Figure 1. **Serum neutralization of RD-114pp.**
Percentage of neutralization with RD-114pp for each patient classified according to the unit of hospitalization. For patients with serial serum samples, the sera collected at the closest to twenty days post-onset of symptoms were chosen.

Supplemental Figure 2. Absence of antibody-dependent enhancement in patients' sera.
Percentage of infection obtained with SARS-CoV-2pp and VSV-Gpp in THP-1 cells. Pseudoparticles were pre-incubated with sera from patients classified according to the hospitalization status (ICU, HOS, EOC) or infected with a non-SARS-CoV-2 coronavirus (CoV). The sera were diluted at 1/100 (**A**) or 1/5,000 (**B**).

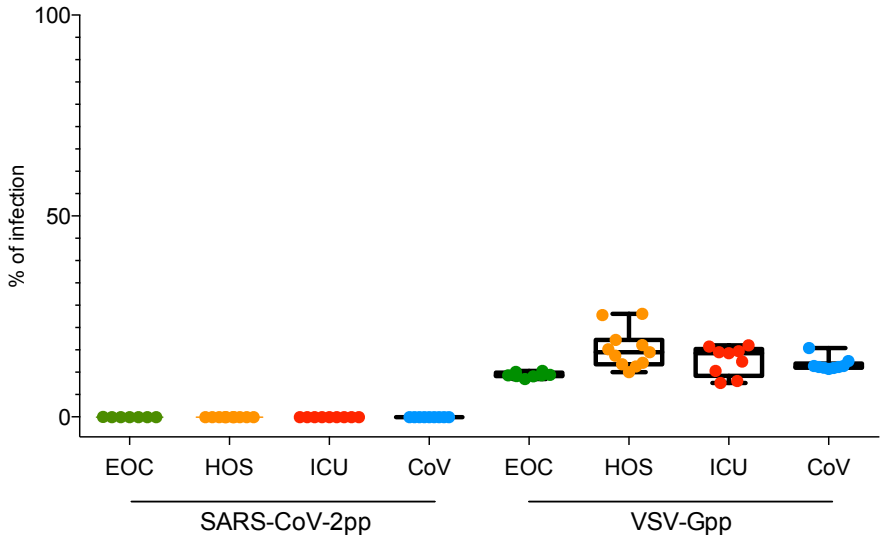
Supplemental Figure 3. Correlation between anti-N and anti-S antibodies.
The values of seroconversion measured by anti-N and anti-S antibodies are shown for the different groups of patients.

Supplemental Figure 4. Viral loads in firstly collected samples correlate with disease severity.
Ct values of the first RT-qPCR (from samples obtained between day 4 and day 10 post-onset of infection) for each patient classified according to the hospitalization status.

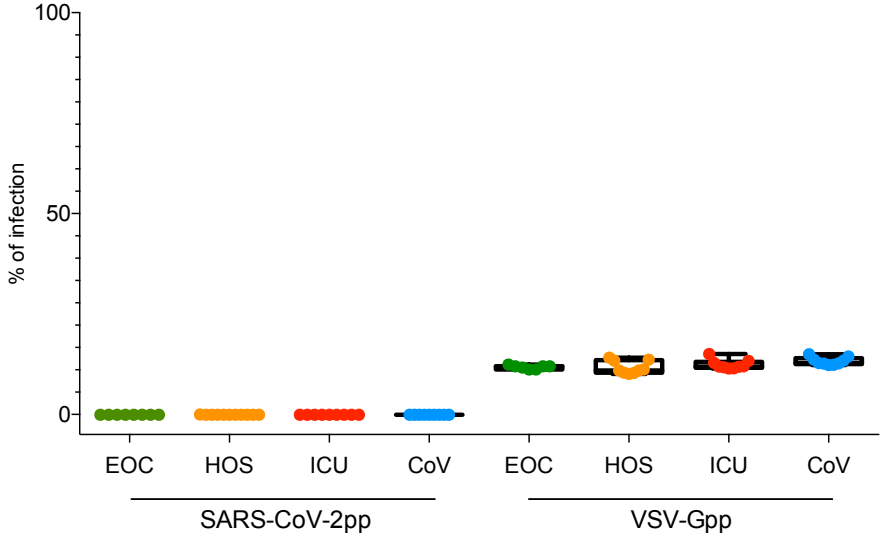


Supplemental Figure 1

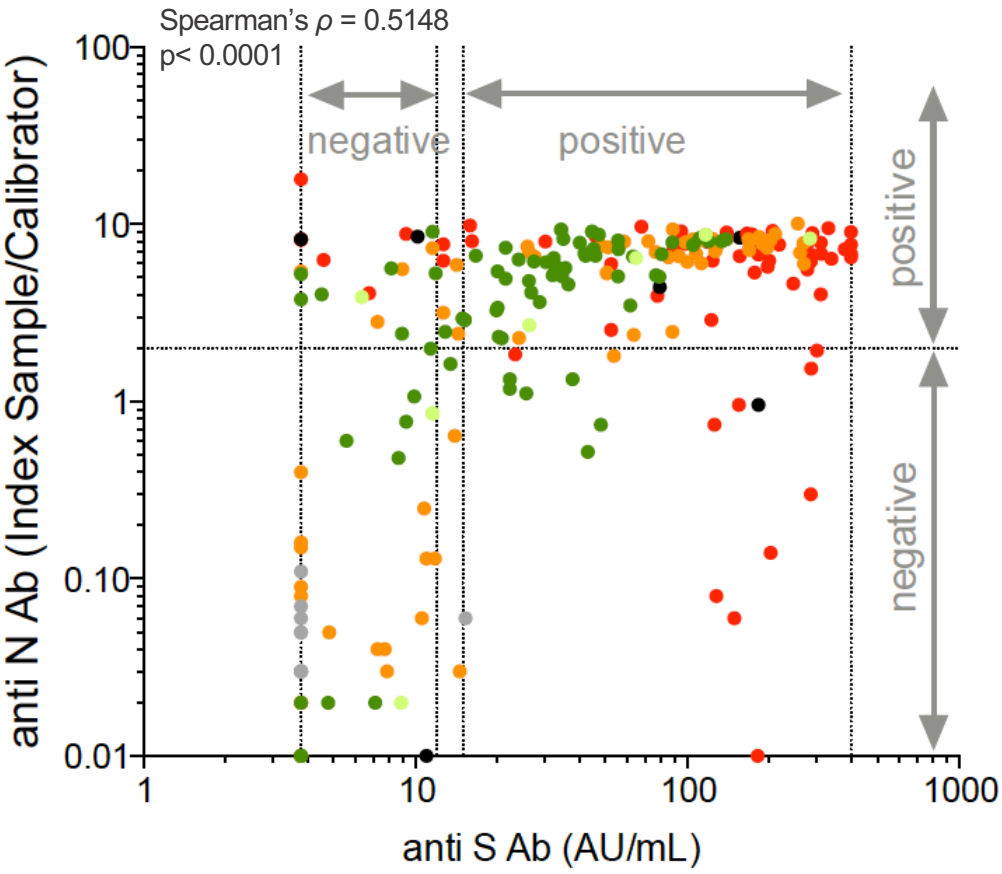
A



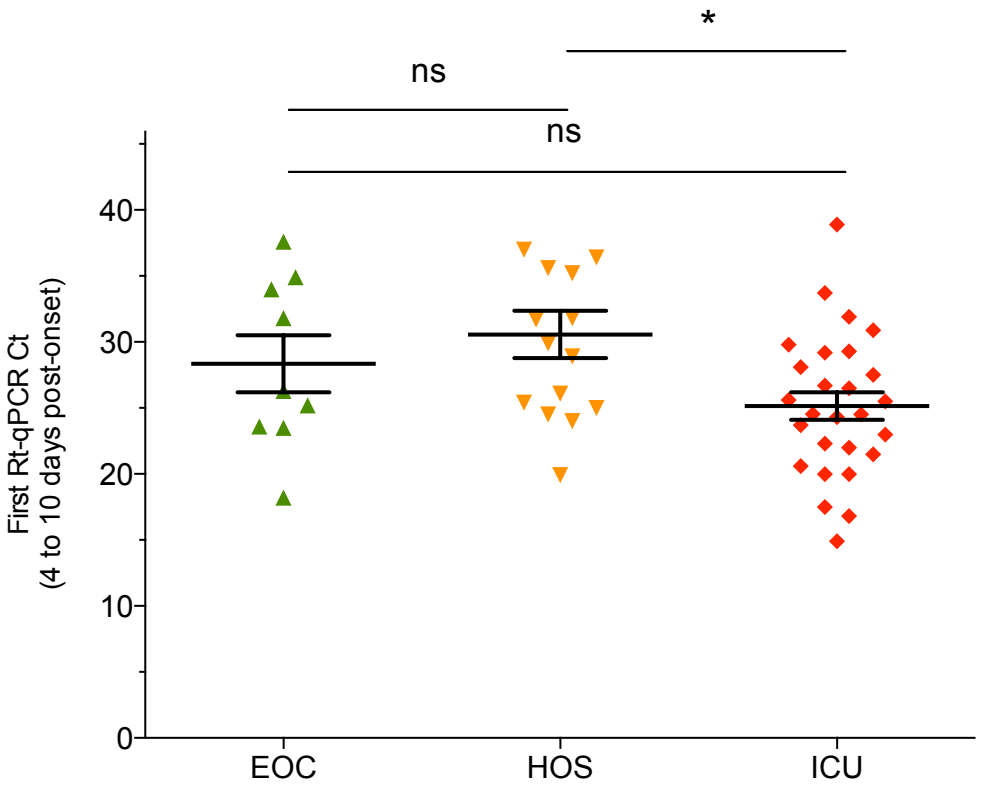
B



Supplemental Figure 2



Supplemental Figure 3



Supplemental Figure 4