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Effects of angiotensin II receptor blocker usage on viral load, antibody dynamics, and transcriptional characteristics among COVID-19 patients with hypertension

Key words: SARS-CoV-2, COVID-19, RAS, ACE2, hypertension

Research Summary

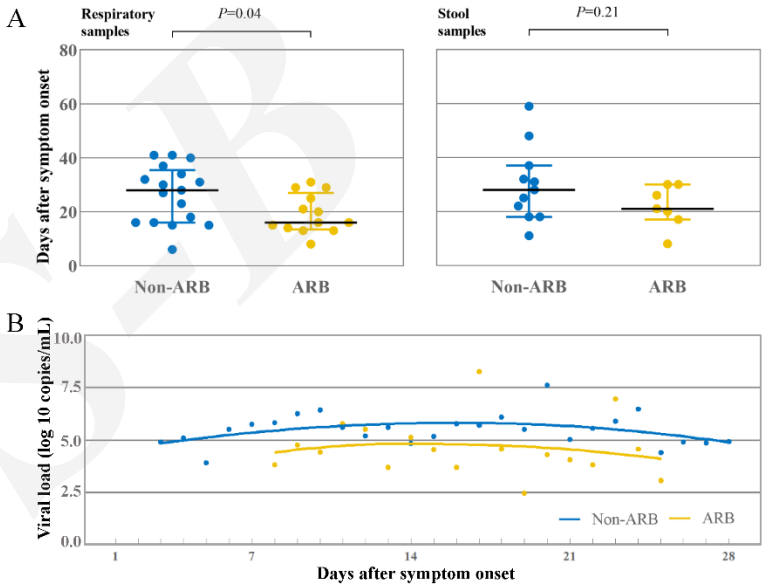
This article mainly focused on the association between RAS blocker usage and clinical outcomes in COVID-19 patients with hypertension, and evaluated the impacts of ARB usage on the following aspects:

- **Viral load**
- **Antibody dynamics**
- **Soluble ACE2**
- **Gene expression**

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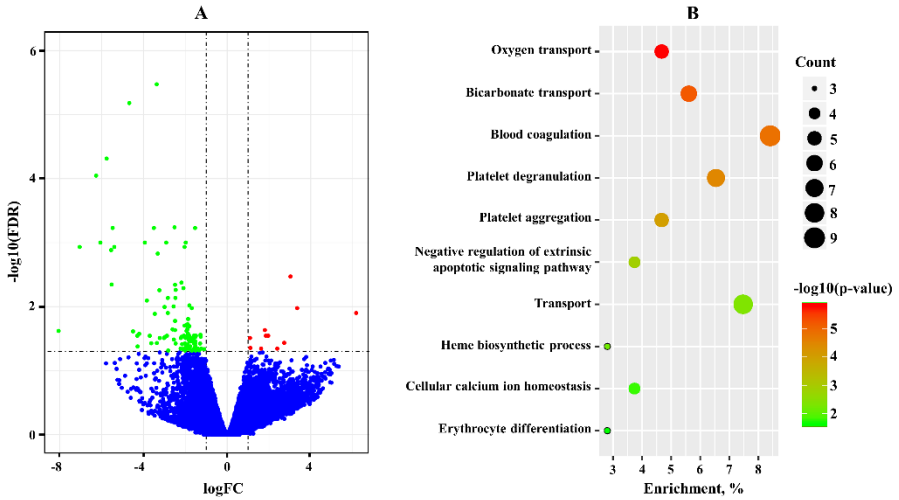
Innovation points

- **Patients in the ARB group manifested favorable results in most of the laboratory testing.**



- **Viral loads in the ARB group were lower than in the Non-ARB group throughout the disease course.**

- **Transcriptional analysis showed 125 differentially expressed genes.**

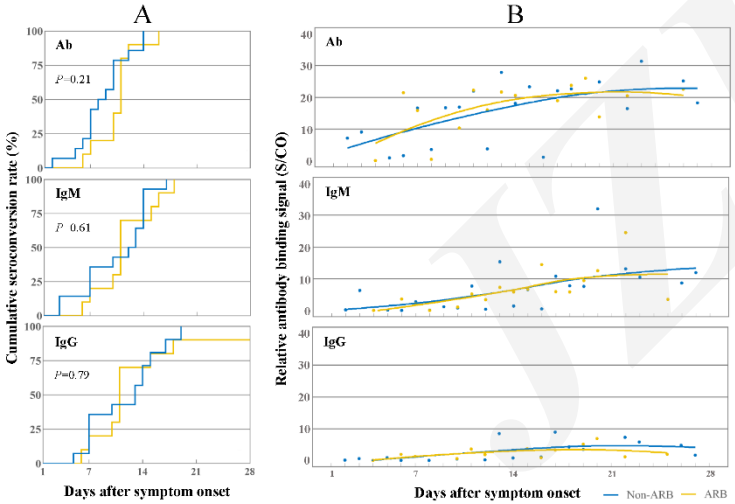


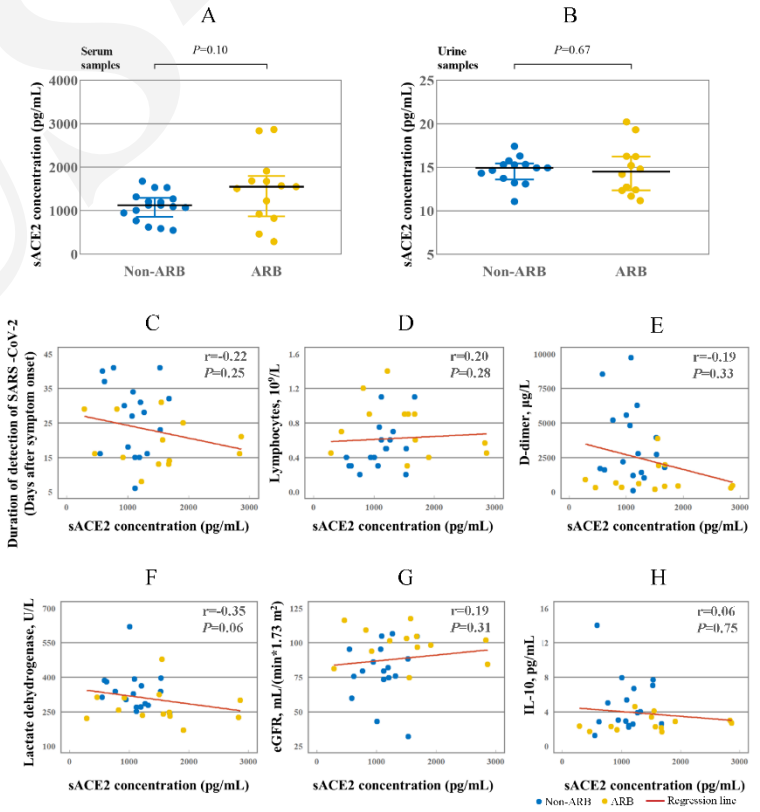
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Innovation points

- **No significant difference in the time of seroconversion or antibody levels was observed between Non-ARB and ARB groups.**

- **No significant correlations between serum sACE2 and biomarkers of disease severity was observed.**





Conclusions

- **ARB usage is not associated with aggravation of COVID-19.**

- **Our findings support the maintenance of ARB treatment in hypertensive patients diagnosed with COVID-19.**

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