

BACKGROUND

Numerous observations have shown that patients with comorbidities are particularly susceptible to complications due to New Coronavirus infection. Patients with cardiovascular disease are at particular risk group among these patients. A special category of patients in this group are patients after heart transplant (HT). These patients have been receiving immunosuppressive therapy for a long time, which leads to a higher risk of complications after COVID-19, and information about respiratory disorders in connection with these complications is currently insufficient in the literature. The study aims to evaluate sleep parameters in HT patients after COVID-19 infection.

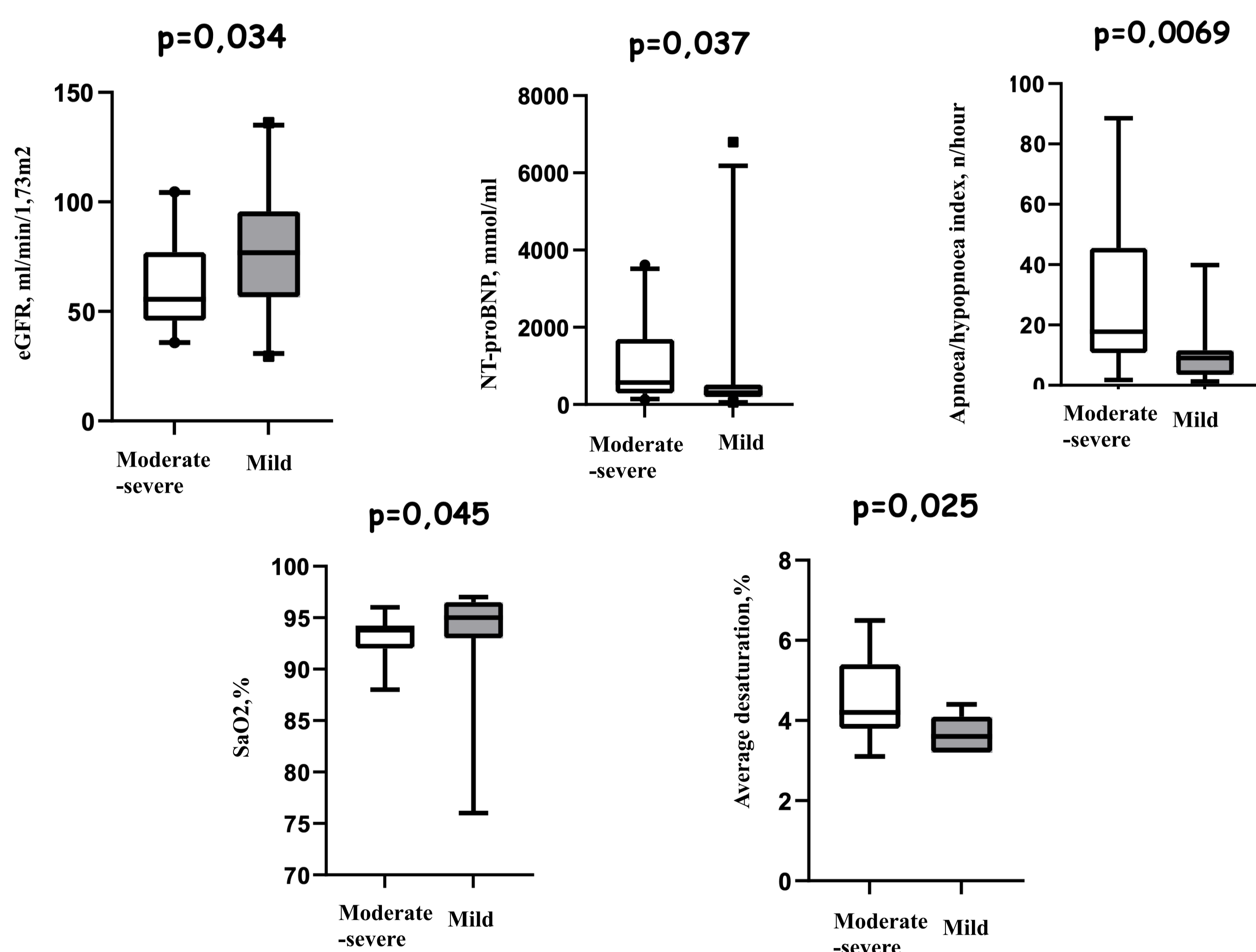
METHODS

The study included 62 heart transplant (HT) recipients (mean age 51 ± 13 years, 42 men) who survived COVID-19. All patients underwent routine clinical examination, including echocardiography, polysomnography, blood tests (plasma natriuretic (NT-proBNP) concentration, creatinine with estimated glomerular filtration rate (eGFR) calculation using the CKD-EPI formula after COVID-19.

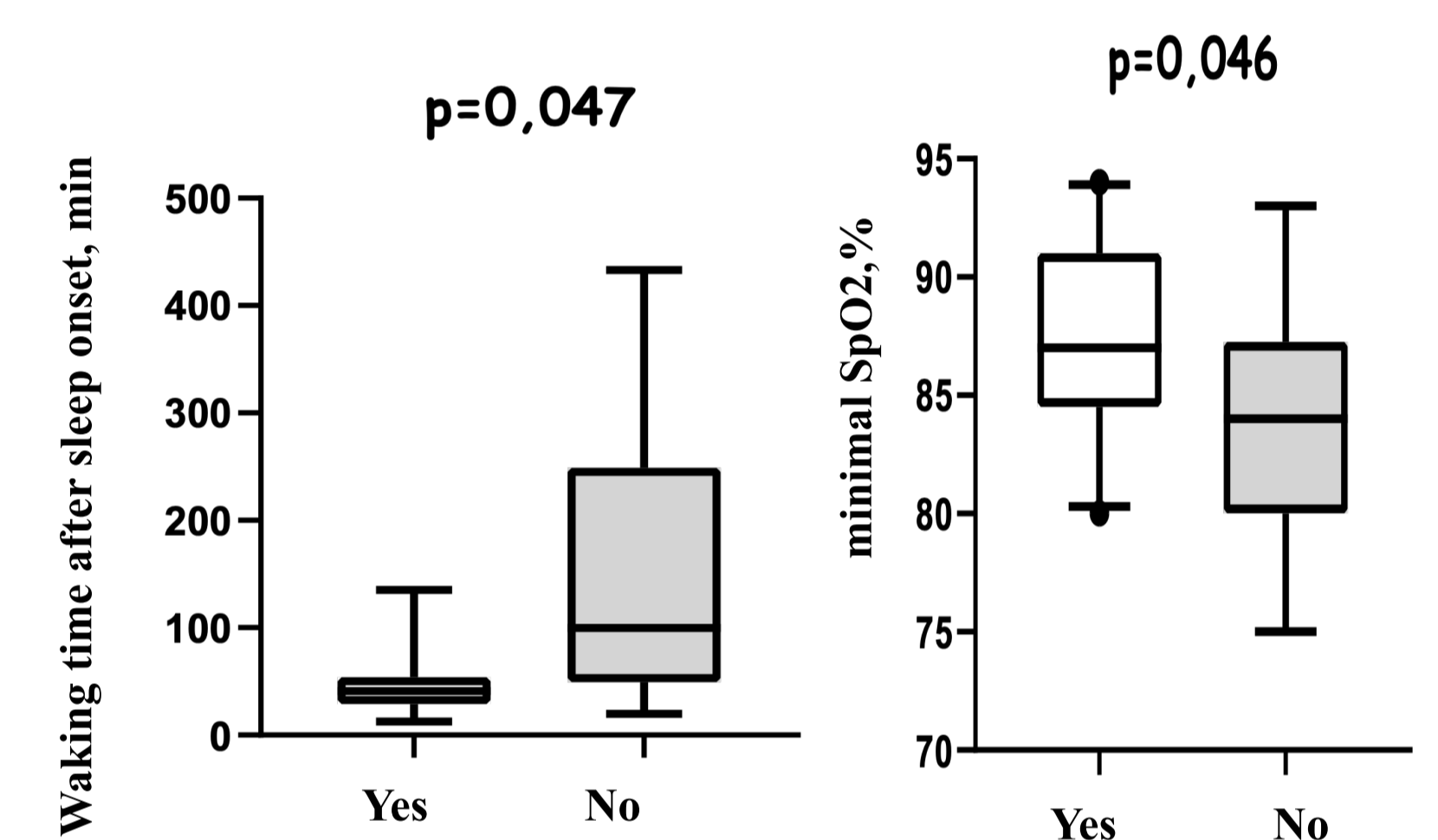
RESULTS

We evaluated sleep parameters according to the severity of COVID-19 in terms of clinical manifestations (28 patients had mild COVID-19 infection, the rest - moderate and severe), the need for hospitalization and mechanical ventilation.

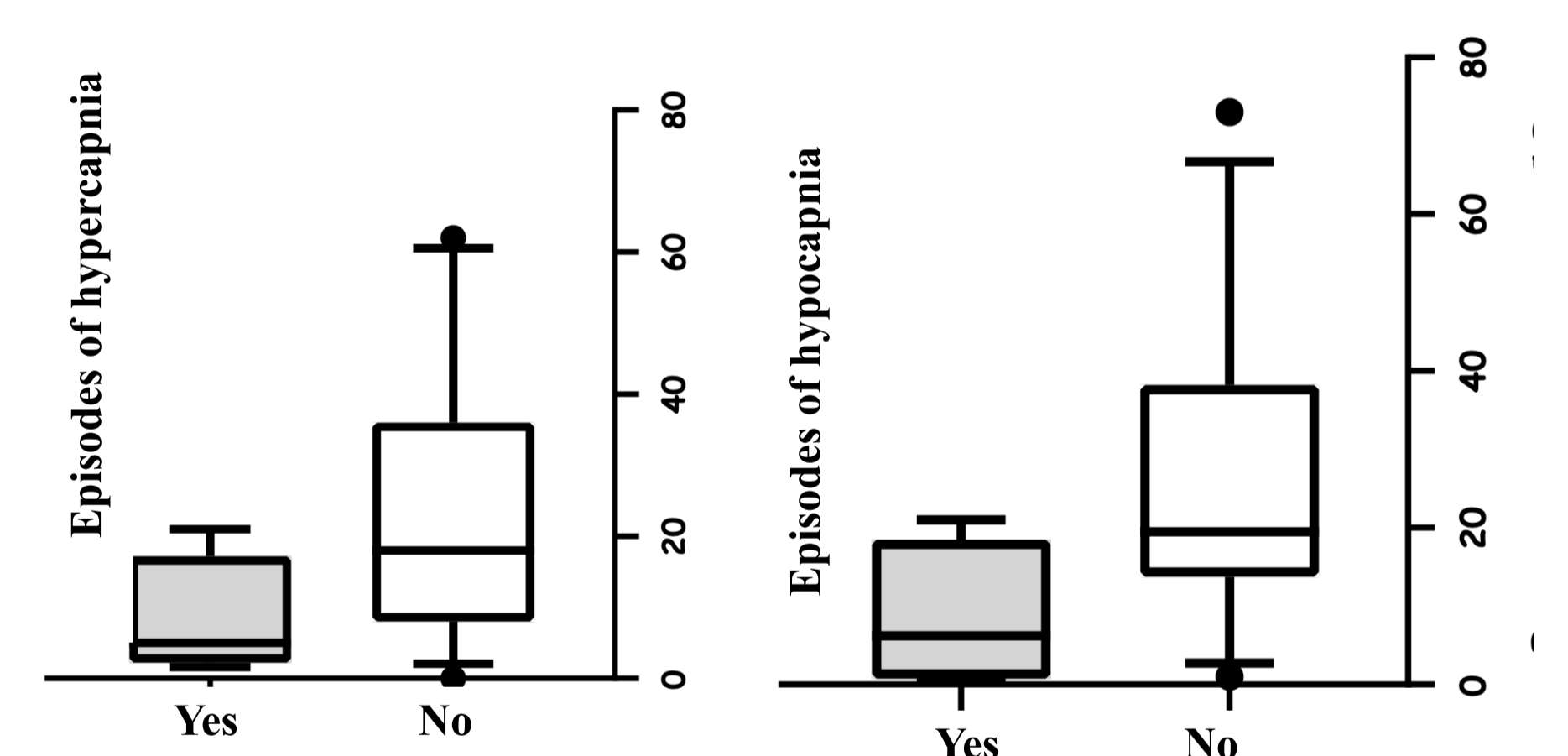
Severity of COVID-19 in terms of clinical manifestations



The need for hospitalization



Mechanical ventilation



CONCLUSIONS

Although our study cannot reveal causative relationship between sleep changes and COVID-19, it shows the importance of sleep study in HT recipients who survived COVID-19 infection. The observed changes in gas exchange indices require further evaluation in association with the post-COVID-19 bronchopulmonary state and function and changes in heart function.

REFERENCES

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