Correlation between AHI and right ventricular diastolic function in patients with obstructive sleep apnea syndrome

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Running Head Correlation between AHI and RV function inOSAS

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Thank you very much for your attention to our article. You mentioned the relationship between obesity and pulmonary hypertension [1], and we also paid attention to the relevant studies. We agree with you that obesity usually occurs earlier than obstructive sleep apnea syndrome(OSAS).

The purpose of our study is to assess the influence of OSAS on right ventricular (RV) diastolic dysfunction[2]. Therefore, in order to eliminate the influence of obesity on PH, in addition the poor image quality of obese patients, we reduce the inclusion of obese patients as far as possible.Furthermore,in order to eliminate the interaction among factors such as hypertension, body mass index (BMI) and elevated SPAP, multivariate linear regression analysis was used to determine whether severe OSAS was an independent parameter for early impaired RV diastolic function. The results showed that AHI right ventricular function were still negatively correlated.

Multivariate linear regression analysis of RV functional indices with AHI

	Coef.	Std. Error	Beta	t	P
RV-SRe	-0.516	0.258	-0.281	-2.495	0.026

In our research, we mainly studied the influence of one factor of OSAS, AHI, on RV diastolic function.However,OSAS is actuallya disease combined with multiple factors. We look forward to further clinical research on OSAS.

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