

Letters to the Editor

Reply to Chen et al.—Obstructive Sleep Apnea Is a Risk Factor for Post Coronary Artery Bypass Graft Atrial Fibrillation



To the Editor:

We thank Chen et al. for their detailed reading of our review.^{1,2} We appreciate the opportunity to address their comments.

The first comment concerns whether it was appropriate to include the study by Sharma et al.³ in our review given that we defined post-coronary artery bypass graft atrial fibrillation (PCAF) as an episode of AF from the end of the operation to hospital discharge. This is consistent with their study because they define new-onset AF as a postoperative complication during the hospital stay.³ Some end points were followed for 30 days, but this did not include PCAF.³

Although the article by Sharma et al.³ was eligible for our review, we conducted a subgroup analysis by excluding it for different reasons (Fig. 1). This analysis was deemed of lesser importance, and we omitted it from our review to provide readers with a more concise message. Comparing Figure 1 in this letter to Figure 2 of our review,¹ removing Sharma et al.³ resulted in obstructive sleep apnea (OSA) being a stronger predictor of PCAF (odds ratio [OR], 2.21; 95% confidence interval [CI], 1.59–3.06) vs OR, 1.86; 95% CI, 1.24–2.80). In addition, removing this study substantially reduced detected heterogeneity ($I^2 < 0.01\%$ vs $I^2 = 35\%$).

Regarding the second comment, our review did not fully describe the subgroup analysis in Figure 3B.¹ We appreciate the opportunity to clarify. We combined the data of severe OSA reported by Grilli et al.⁴ with all data evaluating OSA by polysomnography to assess the sensitivity of the pooled analysis to variations in OSA severity across studies. Figure 3B showed an increased risk of PCAF compared with Figure 3A, suggesting that severe OSA may influence the association.¹ Evidently, this analysis is not sufficient to

conclude that the risk of PCAF increases with OSA severity, and we acknowledged this as a limitation in our review. Our results provide an impetus for future studies to investigate this important question.

Regarding the comment about the cutoff value for severe OSA, > 30 on the apnea-hypopnea index is the standard for severe OSA in the literature. This is consistent with Grilli et al., the only study that stratified their results by OSA severity in our review.⁴

We agree with Chen et al.² that larger high-quality studies may help confirm the findings of our review, but the evidence to date indicates that OSA is a risk factor for PCAF.

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Disclosures

The authors have no conflicts of interest to disclose.

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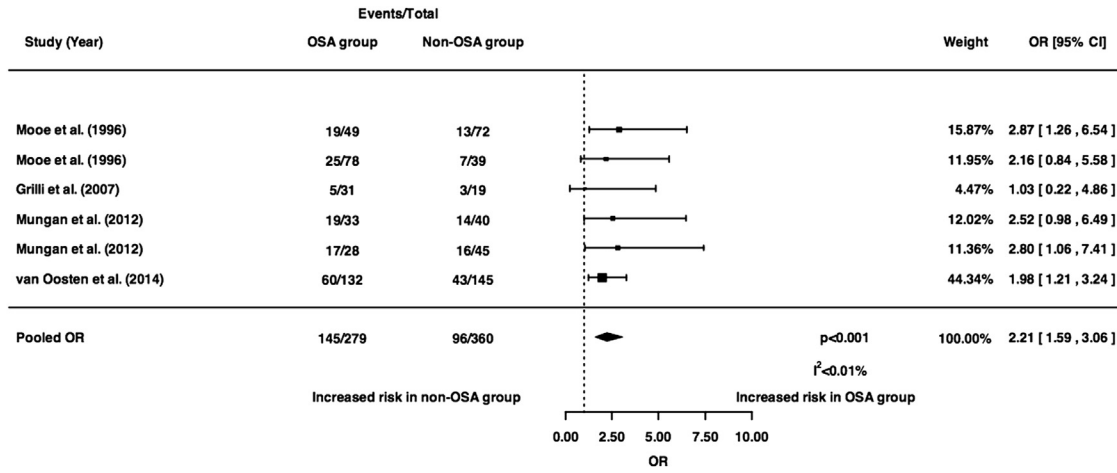


Figure 1. Association between obstructive sleep apnea (OSA) and post–coronary artery bypass graft atrial fibrillation without the study by Sharma et al.³ CI, confidence interval; OR, odds ratio.