New study overturns assumptions about AFib treatment in sleep apnea patients

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A new study found catheter ablation significantly reduced the risk of heart failure and death in patients diagnosed with both sleep apnea and atrial fibrillation. The two conditions often co-exist and sleep apnea has long been seen as an obstacle to successful ablation treatment of AFib. (Photo by Shutterstock)

Obstructive sleep apnea and atrial fibrillation are two conditions that share a potentially deadly link. Having one increases the odds of developing the other, and together, the breathing difficulties of sleep apnea combined with the irregular heartbeat of atrial fibrillation (AFib) can result in life-threatening cardiovascular risks.

The standard treatment for AFib is catheter ablation, a procedure in which doctors create scars within the heart to stop the electrical impulses that cause irregular heart rhythms.

But for decades, sleep apnea has been seen as an obstacle to ablation's success, with studies showing that patients who suffer from both conditions often experience higher recurrence of AFib and poorer long-term outcomes.

Now, a new Tulane University study suggests that ablation still delivers major benefits for this high-risk group, significantly lowering the risks of heart failure and death for those diagnosed with sleep apnea and AFib.

The study, published in the *Journal of Cardiovascular Electrophysiology*, found that catheter ablation was associated with a 40% drop in major cardiovascular events and a 70% decline in all-cause mortality.

Catheter ablation was also associated with a decreased risk of blood clots that can block veins or arteries, causing an embolism or stroke.

"For patients, these findings are encouraging," said lead author Dr. Ghassan Bidaoui, current resident at Tulane University School of Medicine and researcher at the Tulane Research Innovation Arrhythmia and Discovery Institute. "They suggest that even when sleep apnea complicates AFib management, catheter ablation can still lead to better long-term survival and fewer serious cardiac complications. This offers a pathway toward personalized, comprehensive care where procedural interventions are not dismissed solely based on comorbid sleep apnea but rather considered as part of an integrated management strategy."

Using data from the global TriNetX network, researchers followed outcomes from more than 18,000 patients, half of whom received catheter ablation and half of whom did not. The study was one of the most comprehensive analyses to date of the long-term benefits of catheter ablation in this high-risk population.

Co-author Dr. Nassir Marrouche, director of the Tulane University Heart and Vascular Institute, called the study a "game-changer" for those living with both conditions.

"By treating AFib with catheter ablation, we saw a dramatic drop in risk; over 70% reduction in mortality and major improvements in stroke, heart failure, and coronary disease outcomes," Marrouche said. "These findings could redefine how we manage

this high-risk group.”

It's estimated that more than 40 million people worldwide have been diagnosed with AFib. It’s more difficult to calculate how many have sleep apnea, but one recent study estimated as many as 1 billion people may live with the condition.

As these numbers rise due to an aging population, Bidaoui and Marrouche hope the findings of this study can encourage earlier and broader use of catheter ablation to reduce cardiovascular burdens and improve outcomes.

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