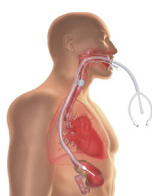


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ATRIOESOPHAGEAL FISTULA—A FOCUS ON PREVENTING A DEVASTATING COMPLICATION



To the Editor:

In their case report, Felmly and Gibney¹ illustrate the devastating consequences of uncontrolled thermal ablation for atrial fibrillation, but with a successful outcome due to high-quality management. Although rare, as emphasized in the commentaries by Shen² and by Alvarado and Worrell,³ atrioesophageal (AE) fistulas represent a significant threat to patient mortality following catheter ablation for atrial fibrillation. AE fistulas represent 15.6% of patient deaths within 30 days of catheter ablation.⁴ As mentioned by Shen,² with the nearly 10-fold rise in performed catheter ablations for the treatment of atrial fibrillation between 2000 and 2013, there will likely be hundreds of AE fistulas yearly.^{5,6} Given the report presented by Felmly and Gibney¹ and recent trends in electrophysiology, it is clear that prevention of AE fistulas should be a priority for both electrophysiologists and thoracic surgeons alike.⁷ AE fistulas present a unique challenge, as they are difficult to diagnose, leading to late management and worsened prognosis, thus demanding proactive safety measures to prevent such a devastating complication.

Active cooling has recently been shown to offer greater protection against thermal ablation injury as compared with the industry standards such as esophageal temperature monitoring or balloon deviation.⁸ The IMPACT study demonstrated a significant reduction in thermal esophageal injury, and thousands of uses have now been performed without the development of an AE fistula.^{2,9} Therefore, broader use of active cooling would reduce the burden of AE fistula resulting from thermal ablation.⁹

In the case of management, the complexity of repair often coincides with the size of fistula as well as the time to diagnosis. As seen in recent repair technique literature, a larger defect likely necessitates multiple repair attempts as well as a possible esophageal diversion.¹ Consequently, it is reasonable to assume that reduction in the degree of thermal injury through evidence-based techniques such as active cooling of the esophagus will lead to both a reduction in the incidence of AE fistulas as well as a reduction of the severity of the defect. Given the aforementioned evidence, the use of active cooling to compensate for the thermal insult of catheter ablation should be advocated for by electrophysiologists and thoracic surgeons alike as this preventative measure will reduce incidence and severity of AE fistulas.

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