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EDITORIAL COMMENT

Expert Article Analysis for:

[Long-term outcomes of percutaneous closure of coronary artery fistulae in the adult: A single-center experience](#)

Editorial on coronary artery fistulae

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CorrespondenceJonathan M. Tobis, Los Angeles, CA.
Email: jtobis@mednet.ucla.edu**Key Points**

- Over 21 years, 26 coronary artery fistulae were treated percutaneously, and 21 (81%) were successful.
- There is still much to be learned about the physiology of coronary fistulae.
- Transcatheter methods have improved over the years and permit a high success rate, but some cases still require a surgical approach.

When I was in medical school 50 years ago, a professor of medicine gave a lecture on the three Basic Principles of Internal Medicine. Channeling the memories of the giants of medicine, such as William Osler from the 19th and early 20th centuries, the Basic Principles of Internal Medicine were explained as follows:

- 1 If what you are doing works, keep doing it;
- 2 If what you are doing is not working, change the therapy; and most importantly,
- 3 Keep your patient out of the hands of the surgeon.

Although this is said with one's tongue deeply imbedded into one's cheek, it does have a certain appeal as a guiding light for what we do, not only in medicine but especially in interventional cardiology. When I was in medical school, interventional cardiology did not even exist as a specialty or as a methodology. Now, we perform unusual procedures in many realms to "keep our patients out of the hands of surgeons." This precept is beautifully exemplified in the accompanying

article by Eric Horlick and his colleagues from Toronto, entitled "Long-term outcomes of percutaneous closure of coronary artery fistulae in the adult: A single centre experience."

Coronary artery fistulae are uncommon, and most interventional cardiologists will only see a few cases in their career. The Toronto group describes 25 patients with 26 fistulae that were treated over a 20-year period. The success of percutaneous therapy improved as our specialty advanced with newer tools, such as more adaptable catheters, and better devices, such as coils and metal mesh plugs. The success rate was high, 21 of 26 (81%), but there were some complications, such as vessel thrombosis due to stasis after closing the fistula. In conditions that are relatively rare, it is difficult to determine the best approach, and certainly, this field does not lend itself to a randomized clinical trial. Shah and the other authors point out that an international registry would help promote our knowledge base concerning coronary artery fistulae. They also raise important questions in their discussion. Given the limited cases and lack of information:

- 1 How should we investigate symptomatic patients with fistulae to determine whether the symptoms are due to the underlying fistulae physiology?
- 2 Which patients with coronary artery fistulae should undergo closure, and who should be managed conservatively?
- 3 What is the optimal antiplatelet/anticoagulation regimen, especially in those with large/giant distal fistulae, who may be at higher risk of thrombotic complications.
- 4 How should we investigate the patient after closure to assess for recanalization or thrombotic complications, and if asymptomatic, is this relevant?
- 5 What are the very long-term outcomes in patients after transcatheter closure of coronary fistulae?

This thorough report, backed up by references to more technical descriptions of how the operators performed specific procedures, helps to promote our understanding of this challenging clinical problem with its unique anatomy. It also reminds us that, despite our best internal medicine efforts, sometimes, it is appropriate to place our patients into the hands of the surgeon.

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