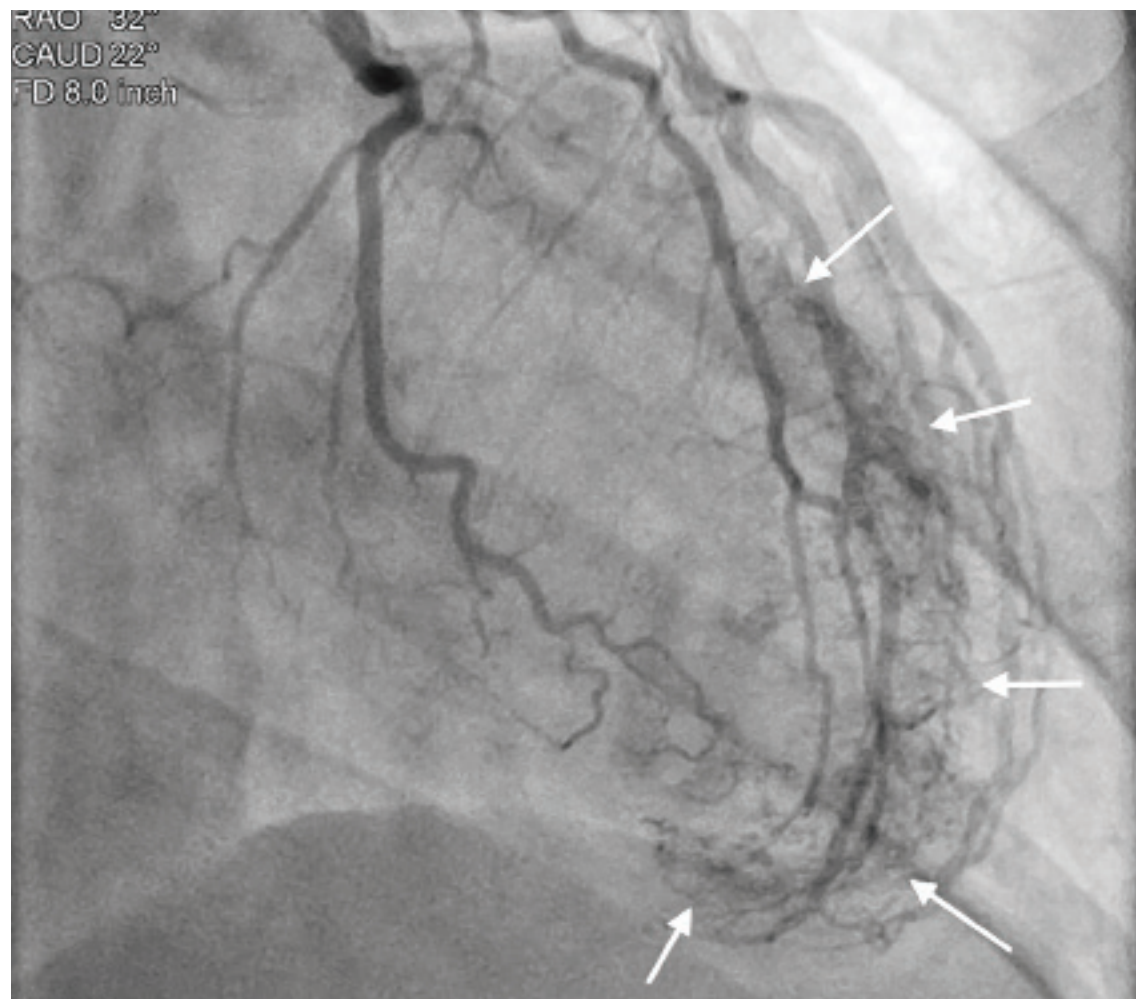
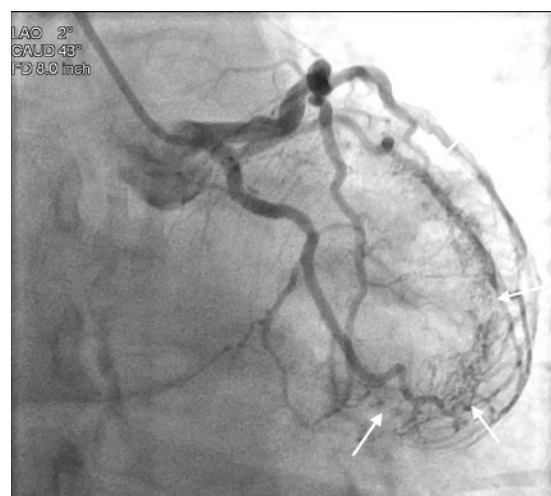


# Thebesian Veins Provide Simultaneous Coronary Angiogram and Ventriculogram in Rare Incidental Finding During NSTEMI

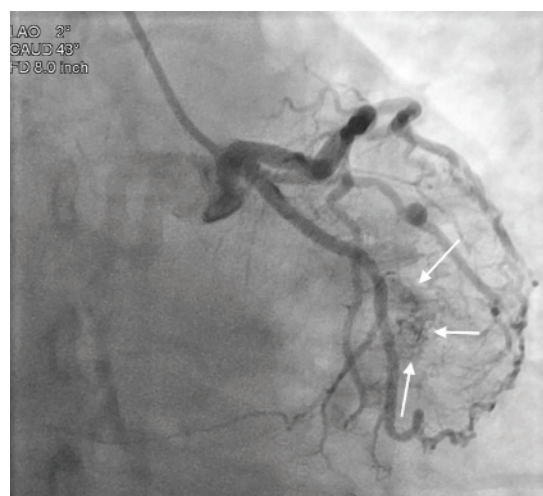
Jeffrey Dwight Smith, RT(R), RCIS, WakeMed Cary Hospital, Cary, North Carolina



**Figure 1.** Arrows indicate anterior and apical left ventricular wall outline from contrast agent through Thebesian veins.



**Figure 2.** Arrows indicate endocardial border during ventricular diastole.



**Figure 3.** Arrows indicate endocardial border during ventricular systole.

A 60-year-old female with no significant past medical history presented with recurring chest discomfort, elevated troponin, and systolic murmur. The patient had no hypertension, diabetes, or dyslipidemia, but was a current 1 pack per day smoker for an unknown number of years.

Coronary angiography revealed no significant coronary artery disease, with only a minor lesion in the proximal right coronary artery. Left ventriculography was performed using a power injector. The patient had an approximate ejection fraction of 60% and there was no angiographic evidence of regurgitation. Following coronary angiography, the patient underwent an echocardiogram to further investigate the systolic murmur. No significant findings were discovered; however, a bicuspid aortic valve was noted, a congenital anomaly occurring in 1-2% of patients.<sup>1</sup> Although the coronary arteries showed no significant disease, there was significant capillary blushing during injections of the left coronaries. A closer review of the images showed the blushing originating from a diagonal branch of the left anterior descending artery with a direct connection to the interior of the left ventricle, effectively providing a simultaneous coronary angiogram and ventriculogram.

Thebesian veins are generally found incidentally during coronary angiography<sup>2</sup> and are the remnant of nutrient supply pathways in the embryonic heart<sup>3</sup>. In this case, the vessels provide a direct connection from the epicardial coronary arteries into the left ventricle. Although Thebesian veins are a rare angiographic find and the clinical effects are not entirely clear, they can make for very dramatic and interesting angiography. ■

## References

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3. Krishnan U, Schmitt M. Images in cardiovascular medicine. Persistent thebesian sinusoids presenting as ischemic heart disease. *Circulation*. 2008 Apr 22; 117(16): e315-e316. doi: 10.1161/CIRCULATIONAHA.107.748863.

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Jeffrey Dwight Smith, RT(R), RCIS, can be contacted at [jsmithbsg@gmail.com](mailto:jsmithbsg@gmail.com).

