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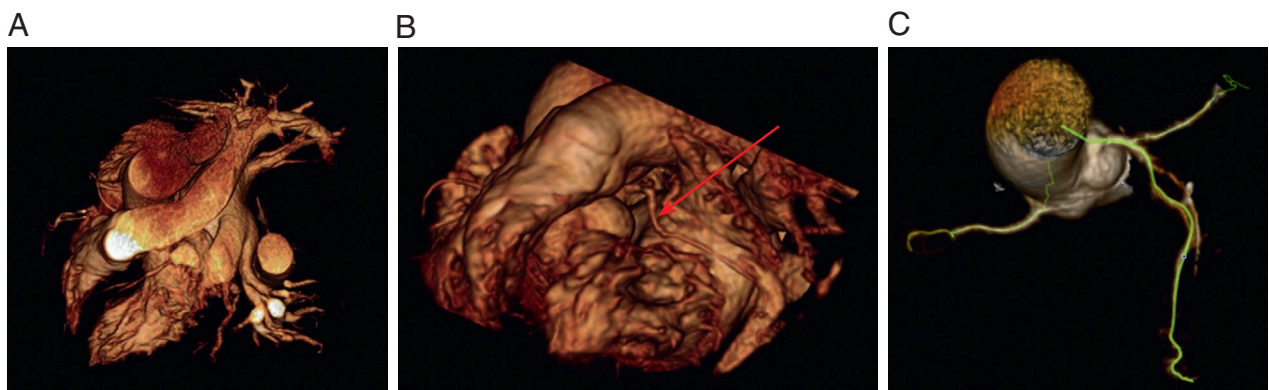
Intraluminal Assessment of Coronary Arteries With Ferumoxytol-Enhanced Magnetic Resonance Angiography



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DIAGNOSTIC ANGIOGRAPHY IS SOMETIMES INEVITABLE IN PATIENTS WITH ESTIMATED GLOMERULAR filtration rate (eGFR) of <30 ml/min/1.73 m² who are not yet on dialysis. However, iodine- or gadolinium-based contrast agents pose a risk of acute kidney injury or nephrogenic systemic fibrosis, respectively (1). Ferumoxytol-enhanced cardiac magnetic resonance angiography (cMRA) (Figure 1) can be an alternative but anaphylactic reactions have been described. We present a brief pictorial overview of our experience of its use in 5 patients (Figures 2 to 5, Online Videos) for assessing the coronary artery tree without complications.

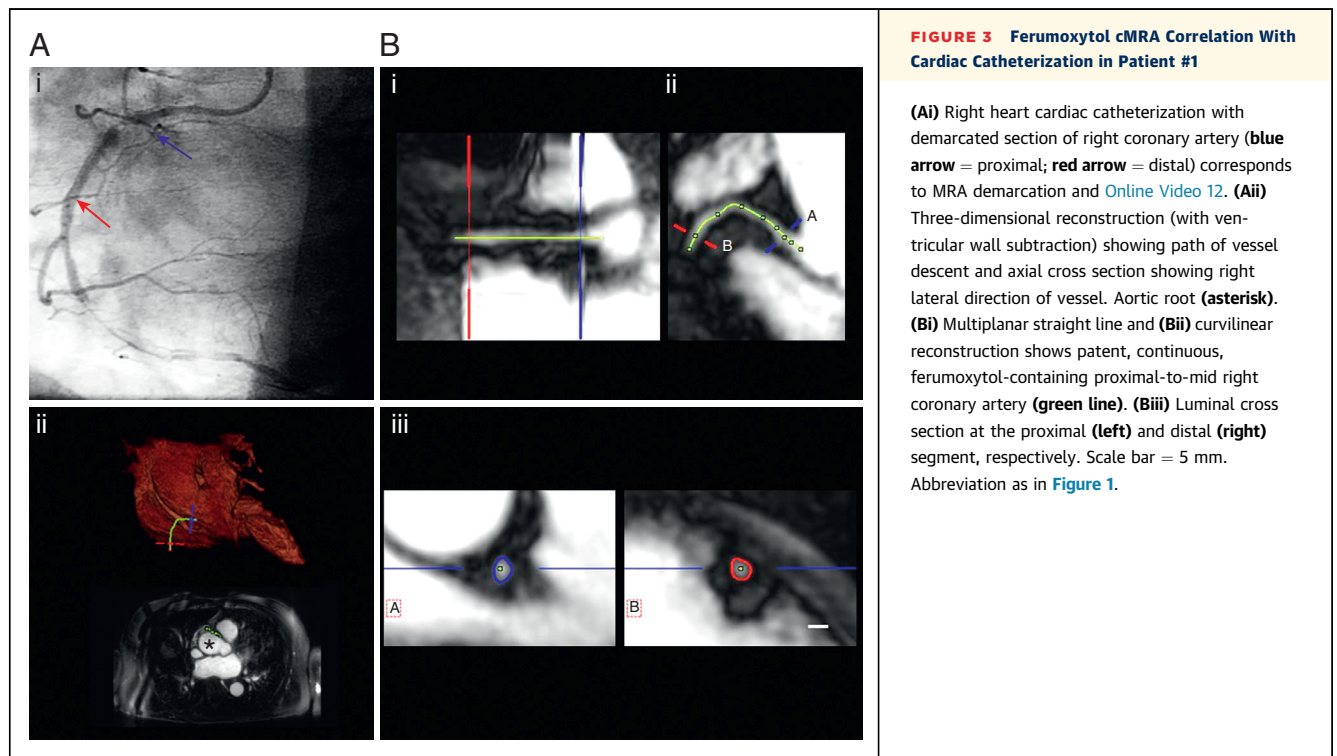
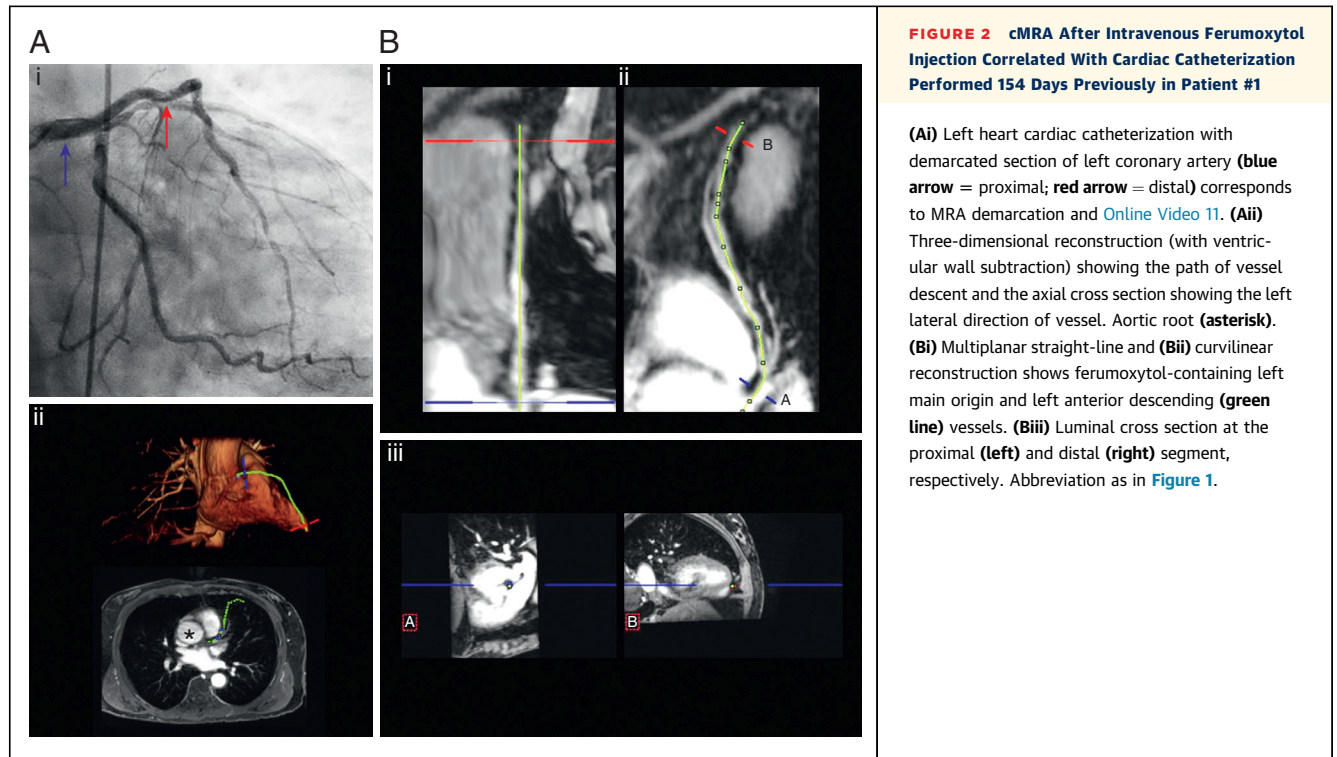
FIGURE 1 3-Dimensional Reconstruction of the Heart After Intravenous Ferumoxytol Injection and Image Acquisition Using cMRA and Cardiac/Respiratory Gating and Ventricular Wall Subtraction



(A) Four-chamber view, clockwise: main pulmonary artery, descending thoracic aorta, left ventricular chamber, right ventricular chamber, and ascending thoracic aorta. (B) Sagittal reconstruction with visualization of left coronary artery (arrow) and overlying main pulmonary artery. (C) Multiplanar reconstruction of the coronary tree viewed superior to inferior showing distribution of right coronary, left main continuous with left anterior descending artery, and left circumflex beginning at the level of the ascending aorta (left to right, green lines). cMRA = cardiac magnetic resonance angiography.

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