Coil Embolization of Traumatic False Aneurysms After Penetrating Knife Wound of a Single Ventricle

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A 25-year-old man with an extracardiac conduit Fontan circulation for tricuspid atresia and hypoplastic right ventricle had a penetrating knife wound of his functionally univentricular heart. He underwent an emergency operation for hemorrhagic shock because of left ventricular tears. Six weeks later he was referred for 2 growing false aneurysms located at the left ventricular apex and measuring 18 × 23 mm and 16 × 13 mm on 2-dimensional and 3-dimensional volume rendering CT (Figs 1A, 1B; white arrows) as well as left ventricular angiography (Fig 1C; white arrow). They were contained by pericardial adherence from previous operations. A 6F Judkins left guiding catheter inserted from the femoral artery was positioned in the ventricular apex, allowing progression of a 2.7 Progreat Co-axial Microcatheter (Terumo Medical Corp, Somerset, NJ) into each aneurysm. Complete exclusion of the 2 false aneurysms was obtained by embolization with 19 and 6 Interlock Occlusion Coils, respectively (Boston Scientific, Marlborough, MA) (Fig 1D; white arrows). The 2-year follow-up was free of cardiovascular complications.

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