2 CASES OF SUCCESSFUL PCI IN EXTREMELY TORTUOUS AORTA

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Introduction

Tortuous anatomy frequently challenge the interventionist and increase risk of case failure, vascular injury and in even mortality. Careful selection and deployment of equipment is crucial to facilitate a safe procedure.

Objective

To describe the use of special guidewires and long sheaths to facilitate PCI through tortuous aortas in 2 cases.

Case 1

A 77-year-old female with angioplasty to the LAD and RCA 2 years previously presented with an inferior STEMI for which she was thrombolysed. Cardiac catheterization was done a week later via the femoral route due to poor radial pulses. Difficulty was noted when passing the JL 4 diagnostic catheter with a standard J tip wire up at the level of the diaphragm due to a near 90° bend in the descending aorta. A TERUMO® GLIDEWIRE® was used to navigate the bend and guide the catheter to the aortic root. Subsequent catheter exchanges and manipulations were facilitated with a 145 cm 0.035" J tip Boston Scientific Amplatz Super StiffTm wire. PCI was subsequently done successfully to a distal RCA lesion.

Case 2

A 77-year-old female with hypertension and diabetes presented with an NSTEMI. Cardiac catheterization through the right radial artery failed due to a looping aortic arch and was converted to femoral. The femoral and abdominal aorta was very tortuous and the standard J tip wire could not pass above the level of the gastric bubble due to an abdominal aortic aneurysm but passed with a TERUMO® GLIDEWIRE®. The TERUMO® 6F femoral sheath was replaced with a ARROW® 35 cm-long sheath which bypassed the tortuosity and aneurysm safely. Once the long sheath was inserted, catheter exchanges and manipulations were done easily. Despite poor support from a JR 3.5 catheter, which was overcome with the use of an anchoring balloon, successful PCI was done to the RCA.

Results

In both cases, tortuous aortas made intervention difficult and risky, however using special guidewires and sheaths, successful PCI was achieved safely.