

MULTIDISCIPLINARY STAGED ENDOVASCULAR REPAIR OF THE AORTIC ARCH WITH NEXUS™



PATIENT INFORMATION

An 81-year-old male patient with previous surgical ascending aortic repair, gothic arch, and systemic vascular pathology.



REASON TO TREAT

Aortic aneurysm from distal ascending anastomosis to celiac trunk varying in diameter from 39-58 mm. Due to the combination of challenges with the anatomy and patient's general condition, the multidisciplinary team discussed and decided the most suitable solution would be to use the NEXUS™ Aortic Arch Stent Graft System.



DEBRANCHING

Extra anatomic bypass from the right carotid to the left carotid and left subclavian artery with additional embolization of the proximal segment of the left subclavian artery.



NEXUS™ IMPLANTATION

The endovascular procedure was successfully performed the following day implanting the NEXUS™ Aortic Stent Graft System excluding the zone 0/1 aneurysm.



NEXUS™ DISTAL EXTENSION

Distal extension to exclude the remaining aneurysmal segment of the descending aorta was delayed allowing build-up of collateral flow to mitigate SCI risk.



PROCEDURAL OUTCOME

The patient was discharged 1 day after the endovascular procedure. The discharge computed tomography angiography confirmed the absence of endoleaks proximally with an expected retrograde endoleak Type 1B which will be resolved at Stage 3 (Figure 2).



COMMENTS

“The device has several advantages, and it is a game changer. The risk of cerebral events is minimized due to less manipulations, the dedicated ascending prosthesis is ideal for the hemodynamics of the aorta above the valve and the off-the-shelf character of the endograft increases overall applicability. The total implantation of 56 minutes and the mild sedation confirms the revolutionary and efficient design of the device. The perfusion of the super aortic vessels through a single branch seems awkward for most of the physicians but looking at the long-term data of such bypasses, it seems that this feeling is matter of mindset. Though, further assessment of the durability of the procedure remains mandatory.”

Figure 1.

A, B, C: aortic enlargement following open ascending aorta replacement as seen on the computed tomography angiogram performed to allow procedural planning

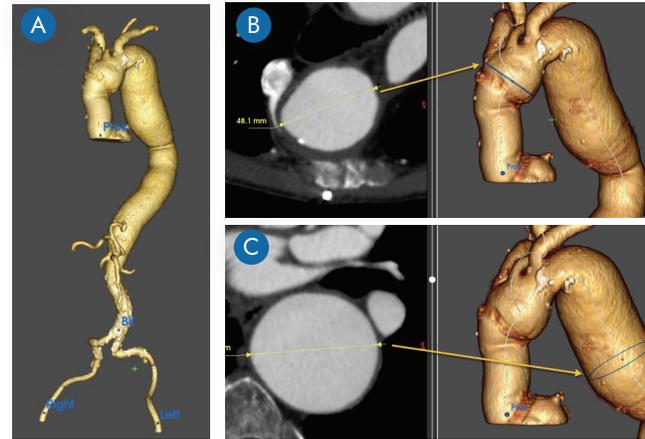
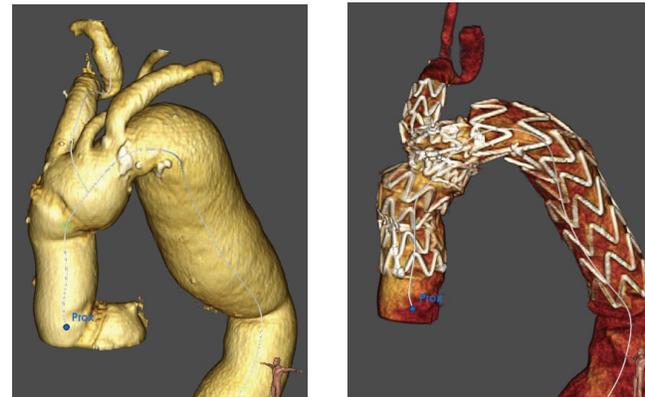


Figure 2.

3-dimensional reconstructions generated from the pre-operative and discharge computed tomography angiography illustrating arch type, pathology, and flexible adaption of the NEXUS™ Stent Graft System.



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