

Percutaneous Carotid Access for Retrograde Chimney in Unplanned Zone 1 Deployment of the Gore Thoracic Branched Endoprosthesis

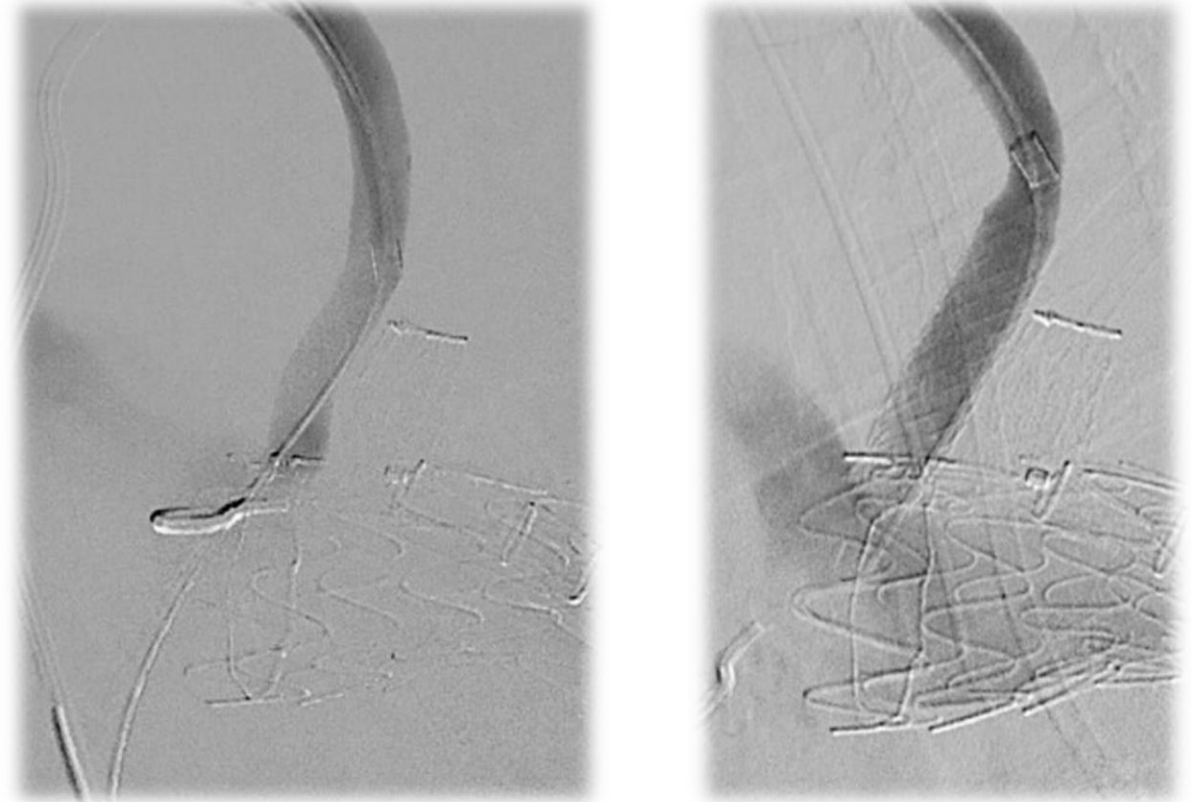
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Purpose: to present a case in which the Abbot Proglide closure device was employed for closure of a percutaneous access to the common carotid artery.

Materials and Methods: a 53yo female with past medical history of hypertension, multiple sclerosis and systemic lupus erythematosus was admitted with subacute type B 2-10 aortic dissection two weeks after discharge from outside hospital where she had been admitted during the acute phase. She presented at our Institution with worsening back and chest pain and radiological progression of the dissection since initial onset and was scheduled for endovascular repair with TEVAR and PETTICOAT.

A 37mm x 150mm Gore Thoracic Branched Endoprosthesis was deployed, and the left subclavian artery branch bridged in standard fashion through a combined percutaneous femoral and left radial approach. Two Cook dissection bare metal stents were then deployed across zones 5 through 8. Completion angiogram demonstrated good expansion of the endografts, with patency of the left subclavian artery and vertebral artery but with delayed filling of the left common carotid artery due to partial coverage of its ostium by the proximal edge of the endograft. The left common carotid artery was unable to be cannulated in antegrade fashion from the femoral access, so it was accessed directly in retrograde fashion under ultrasound guidance. An 8Fr sheath was advanced over an 0.035" wire and a 10 x 39mm Gore VBX was deployed to complete the zone 1 chimney. Completion angiogram confirmed patency of the supra-aortic trunks and corresponding stent-grafts. One Proglide device was then deployed on the common carotid artery and both ultrasound and angiographic evaluations of the access site were performed to rule-out associated complications.

Conclusion: in select patients, percutaneous access to the common carotid artery can be an adjunct to the endovascular management of distal arch pathology.



Results: the patient recovered with no neurological deficit or access site complication. Post-operative duplex ultrasound and demonstrated no evidence of hematoma, pseudoaneurysm or dissection at the level of the left common carotid. CTA confirmed these findings and visualized good aneurysm exclusion and correct expansion of the left common carotid chimney.