

# Thoracic Endovascular Aortic Repair for a pseudoaneurysm in a patient with small caliber stretchable stenotic iliac arteries

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## Introduction

We performed thoracic endovascular aortic repair (TEVAR) for aortic pseudoaneurysm in a patient with a chronic Type III aortic dissection and small caliber diseased iliac arteries. Patient was 64-year-old hypertensive male patient on hemodialysis. He was previously managed medically and thoracic pseudoaneurysm was followed as double lumen aorta (**Figure 1**).

## Objective

Common femoral arteries were about 6 mm on both sides at healthy segments and both were diseased (**Figure 2**). Cardiovascular surgery referred patient for TEVAR instead of open surgery

## Materials and Methods

After obtaining CT images we decided to use a 22Fr GoreDryseal hydrophylic sheath despite small and diseased iliacs. We assessed that stenosis in iliac was not atherosclerotic but due to dissection and thrombus and vessel can be stretched by a hydrophylic sheath. Right common femoral artery was explored by cardiovascular surgeon and on palpation femoral artery was not atherosclerotic. We accepted risk of perforation and prepared Viabahn grafts stents in case of rupture after sheath withdrawal. We forcefully inserted hydrophylic sheath through right iliac and implanted a GoreExcluder 34x150 mm endograft successfully. Pseudoaneurysm was excluded after the procedure (**Figure 3**). Sheath withdrawal was difficult and we withdrew the sheath by continuous pullback. Control images revealed no perforation in iliafemoral vessel despite severe overstretching (**Figure 4**). His postoperative course was uneventful.

## Results



Figure 1. Thoracic aortic pseudoaneurysm and Type III aortic dissection



Figure 2. Bilateral diseased and small caliber (6 mm) iliac arteries



Figure 3. Thoracic pseudoaneurysm exclusion by GoreExcluder 34x150 mm graft



Figure 4. Right iliac artery without any perforation after overstretching with 22 Fr GoreDryseal sheath

## Conclusion

We think TEVAR option can be tried in small, nonatherosclerotic, thrombus containing stretchable iliacs despite perforation risk because it is less invasive and aortic occlusion balloon and graft coated stents can easily repair damage in case of rupture.