



# Endovascular hybrid stent-graft repair of spontaneous aortocaval fistula with ruptured abdominal aortic aneurysm.



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## Introduction

Aorto-caval fistula (ACF) is a rare complication reported in 3-6% of all ruptured abdominal aortic aneurysms (RAAA).(1)The majority of ACF occur spontaneously, either as a result of rupture of an existing atherosclerotic abdominal aortic aneurysm into the vena cava or secondary to iatrogenic injuries during aorta angioplasty or surgery. (2)Symptomatic ACFs have traditionally been repaired using open surgical techniques with significant intraoperative blood loss and high operative morbidity and mortality rates.(3) Endovascular repair for RAAA (EVAR) provides an adequate, validated and safe option, however, there are limited application by complication. Endoleaks are the most common deficit.

## Method

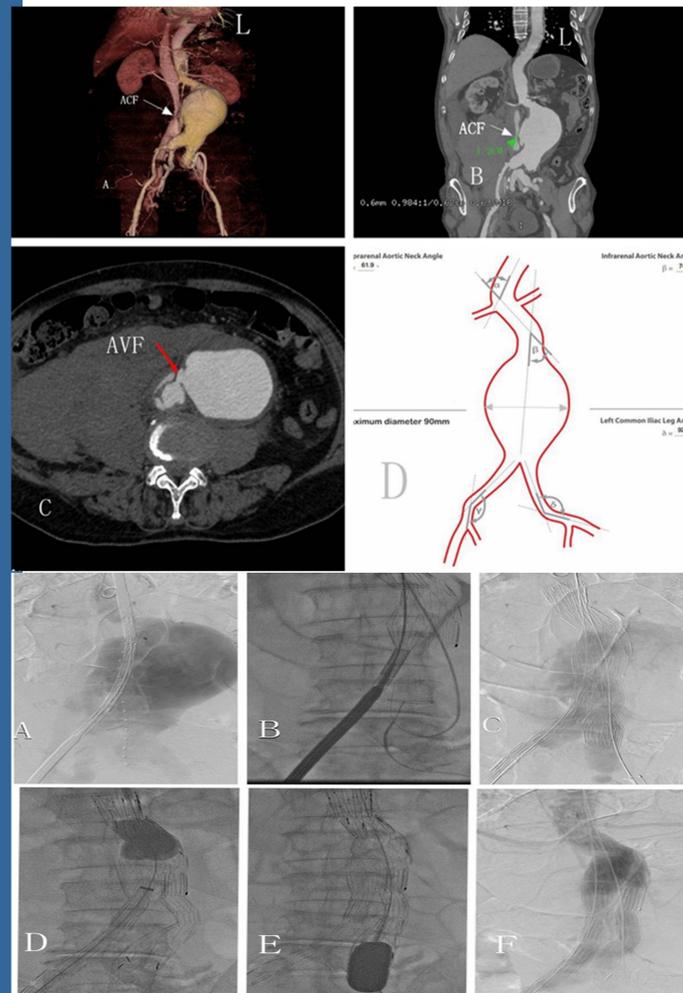
We presented two case who were treated in our University Hospital. Ruptured abdominal aortic aneurysm with aorto-caval fistula were completely managed by aortic stent-graft implantations despite of inferior vena cava endografting and the literature was reviewed.



## Case 1

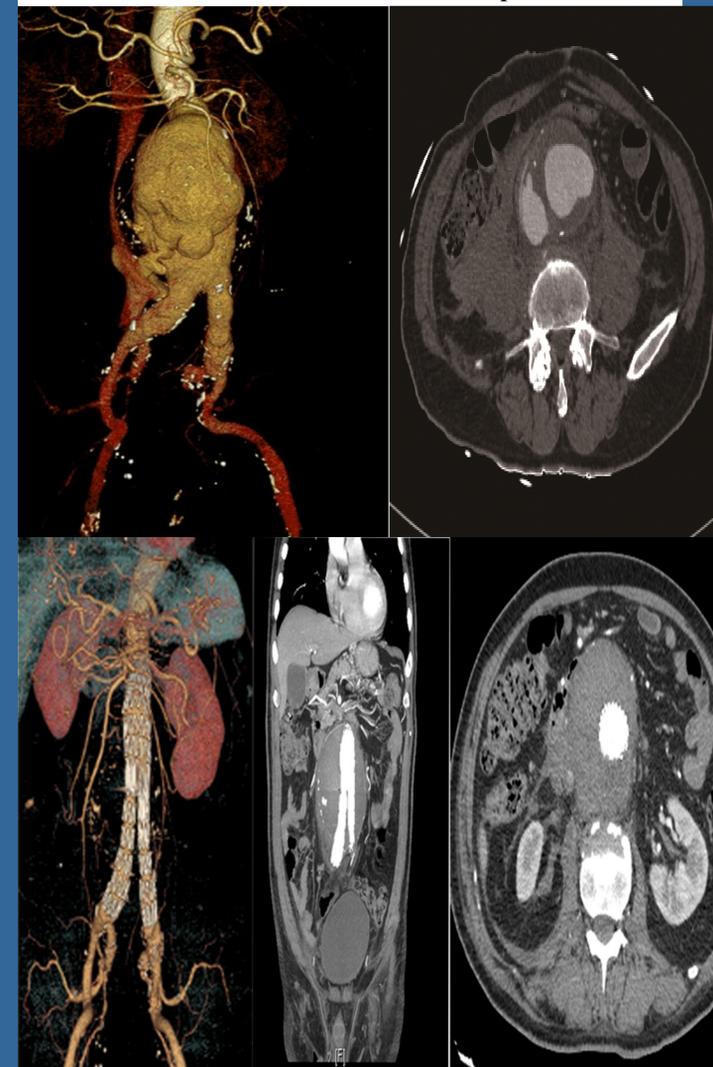
- 78-year-old male
- acute lower abdominal back pain, dyspnoea, NYHA functional **class III**
- Medical History: OMI, Hypertension
- Anatomy:**90mm** RAAA, neck angulation/diameter:  $74^\circ$  /25mm ACF diameter:12mm CIA: **left: 24 mm/92.9°** right:23mm

Preoperation CTA



## Case 2

- 74-year-old male
- Medical History: 20 years of Hypertension and CHD
- Anatomy:**78mm** RAAA, neck angulation/length/diameter: $40^\circ$ /10mm/29m m ACF diameter:4mm CIA: left: 22 mm right:20mm CTA and Follow-up



## Result

1. Patient A was founded type **Ia endoleak and Ib** endoleak at the left CIA via intraoperative angiography.
- **A Excluder Cuff** Stent-Graft was deployed to eliminate endoleak.
2. **Type II** endoleak was detected after 14 days of EVAR in patient B with the resolution of ACF. We adopted a Zenith COOK Cuff in this Case.
3. 12 months follow up: No Sac enlargement and persist **Type II** endoleak .

## Conclusion

Aorto-caval fistula could be managed by **solid sealing of both proximal and distal landing zone** using hybrid endografting. Although hybrid stent-graft repair of spontaneous aorto-caval fistula may be replaced by the newer and more suitable endovascular devices, it still **remains a doable protocol in emergency circumstances**. Finally, **under what circumstance** should we adopt inferior vena cava (IVC) endografting still need investigation. Therefore, we may take a wait and see strategy to asymptomatic ACF and more clinical data is required to draw more solid conclusions.

## Bibliography

### References

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