

Ruptured Complex Aortic Aneurysms Treated with Fenestrated Endovascular Aortic Repairs using Physician Modified Endografts

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INTRODUCTION

EVAR for rupture AAA has remarkably reduced operative mortality, compared to open repair. Yet, it remains with limitations for non-infrarenal aneurysms.

OBJECTIVES

To present an experience with fenestrated EVAR (FEVAR) for ruptured complex aortic aneurysms using physician modified endografts (PMEG).

METHODS

- Retrospective review of prospective database
- 2015-2020
- Patient selection and device to be modified at surgeon preference
- Clinical presentation, details of repair, and postoperative outcomes were assessed

- 11 patients (1 hemodynamically unstable)
- Technical success = 82% (1 death, 1 EL)
- Operative mortality = 9% (n=1)
- ICU stay = median of 3 days (range, 0-7)
- Total stay = median of 7 days (range, 1-22)
- Discharge disposition
Home = 64% (n=7)
Facility = 27% (n=3)

Table 1. Demographics

Variable	n (%)
Age at procedure (years): Mean ± SD	75 ± 11
Gender (Male)	9 (82)
Hypertension	11 (100)
Diabetes mellitus	3 (27)
CAD	4 (36)
COPD	5 (45)
Chronic renal failure	3 (27)
Peripheral arterial disease	2 (18)
Smoking history	9 (82)
Antiplatelets	5 (45)
Betablockers	7 (64)
Antihyperlipidemics	7 (64)
Previous EVAR (failed)	4 (36)
ASA class (4E)	9 (82)
ASA class (5E)	2 (18)

RESULTS

Figures. Patient with a ruptured failed EVAR.
1. Pre-op CTA. 2. Repair completion. 3. Post-op CTA 3D

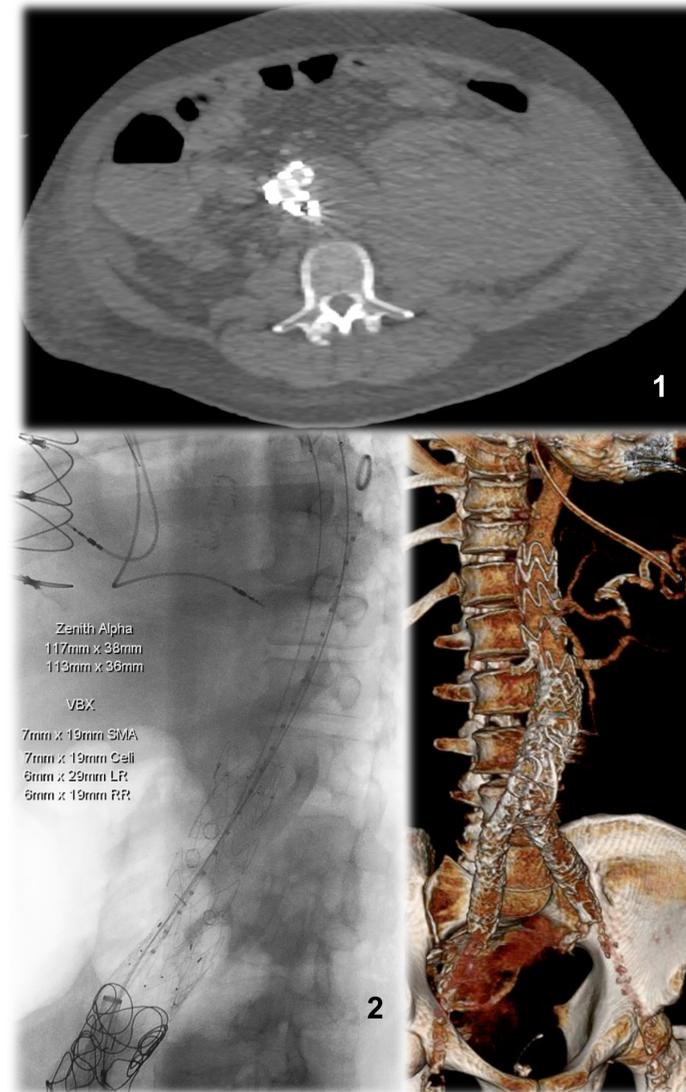


Table 2. Results

Variable	n (%)
Failed EVAR*	4 (36)
Juxtarenal	6 (54)
Type III rTAAA	4 (36)
Type II rTAAA	1 (9)
Bilat CFA perc access	11 (100)
Vessels stented	
Celiac	3
SMA	10
R renal	9
L renal	9
Target vessel technical success	97% (31 stented out of 32 planned)
Median operative time	173 min (range, 103-320)
Median contrast volume	122 ml (range, 50 - 170)
Renal failure - severe	1 (9)
Cardiac complications - severe	1 (9)
Bowel ischemia - severe	0 (0)
Reinterventions	3 (27)
LE ischemia	1 (9)
Endoleak	2 (18)

*All with type IA endoleak

CONCLUSIONS

FEVAR of ruptured complex aortic aneurysms and rTAAA using PMEG is feasible, with favorable outcomes.