Outcome of endovascular aortic repair (EVAR and TEVAR): single centre experience

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Aim

❑To evaluate the efficiency and short term results of endovascular abdominal aortic aneurysm repair (EVAR) and thoracic aortic endovascular repair (TEVAR) as a treatment modality in patient with thoracic and/or abdominal aortic diseases who presented to our hospitals

Methods

❑This is a prospective study conducted on patients with abdominal aortic aneurysms and thoracic aortic dissection indicated for treatment that were presented to us along the period of 2 years. Endovascular treatment was the first choice modality of treatment in treatment of all patients

Results

❑This study included **55** EVAR patients and 15 TEVAR patients who presented to our hospitals having infrarenal abdominal aortic aneurysm , descending thoracic aortic aneurysm or aortic dissection type B who underwent endovascular repair during the period from January 2012 to December 2014.

	EVAR	TEVAR
Mean age	65	63
Male	41	12
Smoking	45	11
Diabetic	8	3
Hypertensive	27	14
IHD	8	3
Renal impairment	0	1
Symptomatic cases	45	6

❑***In EVAR group , Proximal neck diameter*** ranges between 17.5 mm to 30.5 mm with ***Proximal neck length*** ranges between 5 mm to 60 mm and ***Neck angle*** ranges between 11.7 to 60.

❑***Two cases with juxtarenal AAA one treated with fenestrated graft and one by chimney***.

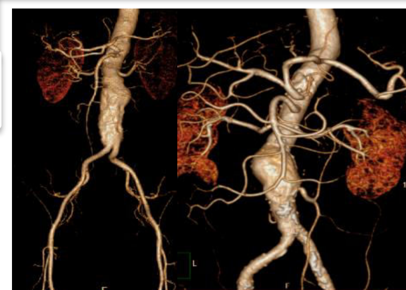
❑ ***In TEVAR group,*** proximal landing zone was adequate except in tow cases one coverage of LT subclavian without revascularization and another one coverage of Lt subclavian and Lt carotid with carotid carotid bypass done before the TEVAR insertion and two cases necessitate coverage of celiac artery.

❑**In EVAR group *Endoleak*** was detected In 9 cases there was a detectable endoleaks, 4 case type Ia endoleak 3 respond to proximal ballooning and the other needed an aortic cuff extension. 3 cases type Ib endoleak 2 treated with iliac extension and one respond to balloon dilatation. 2 cases type II endoleak that were treated conservative. **In TEVAR group** ,Two cases of endoleak that were treated conservatively type I and type IV .

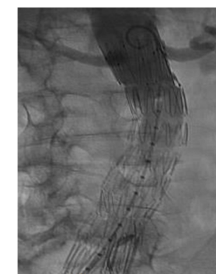
❑ ***Graft limb occlusion*** occurs in 2 case and needed a femrofemoral bypass.

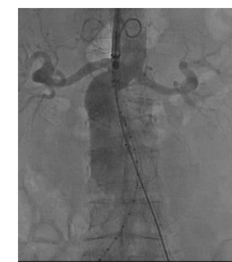
❑***Mortality:*** In EVAR group : 30 days post operative mortality There was 2 case mortality from MI and In TEVAR group 30 days postoperative mortality was one. In 1 year follow up there was 2 mortalities in EVAR group and 1 mortality in TEVAR.

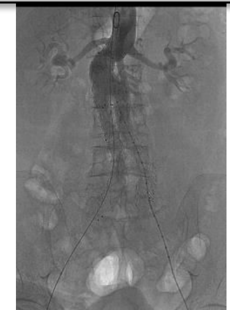
❑ all deaths were not caused by aortic related pathology.

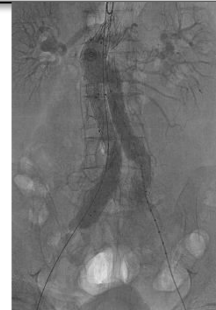


Preoperative CTA

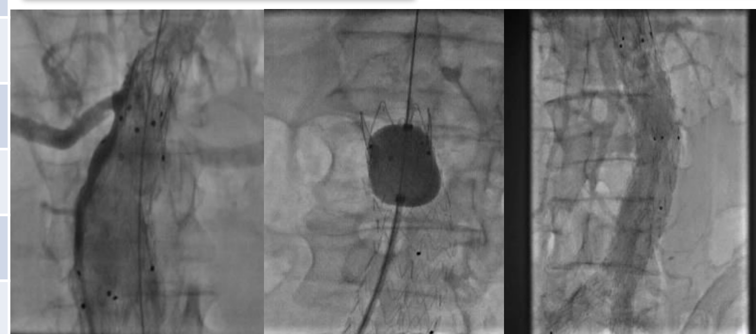




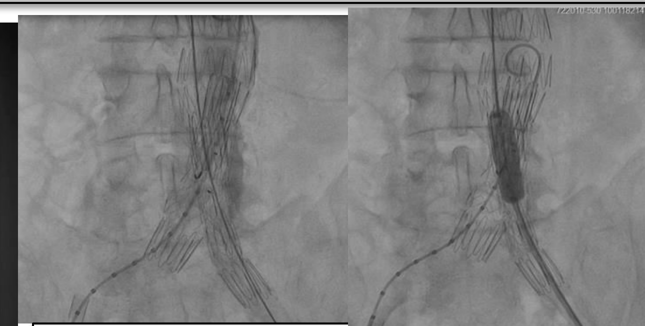




Care during deployment



Type one endoleak dilated with balloon



Type IB endoleak that was treated with balloon

Conclusions

❑EVAR and TEVAR achieve high technical success and lower mortality and morbididty hence should be considered as preferred choice of treatment and should be offered as first line treatment in such conditions

❑You should follow the IFU with proper selection of the cases