PREVENTION OF TYPE II ENDOLEAK: ROLE OF EVAS TECHNIQUE IN COMPARISON TO SAC EMBOLIZATION TECHNIQUE IN CASE OF AAA ENDOVASCULAR TREATMENT

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Disclosure

Speaker name:

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I do not have any potential conflict of interest

- T2EL is the most frequent complication, occuring in 8% to 45% of cases.

- Persistent T2EL is associated with a higher risk of aneurysm sac growth, increased reintervention rates, conversion to open repair, and aneurysm sac rupture.

- Furthermore treatment of persistent T2EL has shown unsatisfactory success rates, approximately 60%.

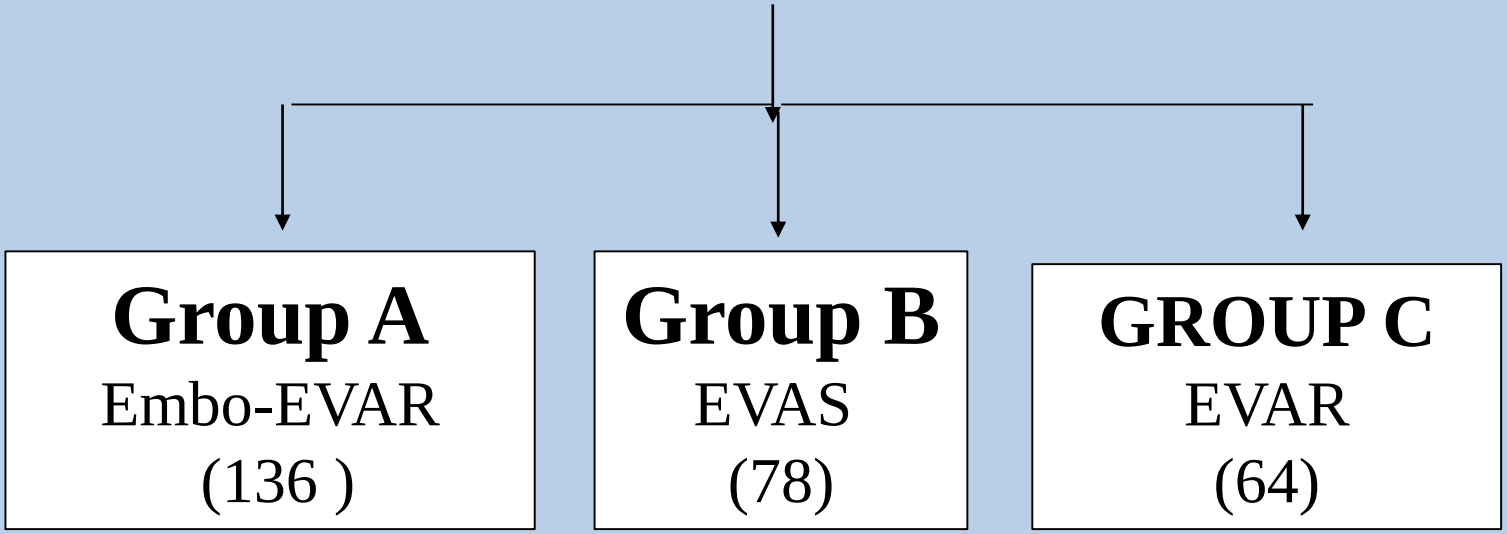
INTRODUCTION

The goal of this retrospective study:

to compare endovascular intraoperative aneurysm sac embolization in standard endovascular aneurysm repair (Embo-EVAR) with endovascular aneurysm sealing technique (EVAS) to reduce and prevent type II endoleak (T2EL)

METHODS

Endovascular aortic repair :
patients
(between January 2013 and January 2018)



METHODS

Comorbidities	GROUP A (n= 136)	GROUP B (n= 78)	GROUP C (n=64)
Ischemic Heart Disease	62 (45,5%)	64 (47,5%)	26 (40%)
Renal Failure Creat >1,3mg/dl	31 (23,5%)	21 (27%)	12 (18%)
COPD	30 (22%)	18 (23,4%)	9 (14%)
Hypertension	115 (84,5%)	63 (80,7%)	54 (84%)
Diabetes	22 (16%)	28 (35,8%)	14 (22%)

Anatomical Risk factors	GROUP A (n=136)	GROUP B (n=78)	GROUP C (n=64)
Diameter (cm)	5,8 +- 1,3	5,7 +- 0,7	5,8 +-1,2
Patent IMA	89 (65,4%)	64 (82%)	42 (65,6%)
Lumbar Artery Pairs 1 2 >3	 28(20,5%) 47(35%) 50(37%)	 4(5%) 39(50%) 27(35%)	 20(30%) 32(50%) 9(14%)
True Lumen Volume (cm^3)	93 +- 37	81 + - 26	97+- 31

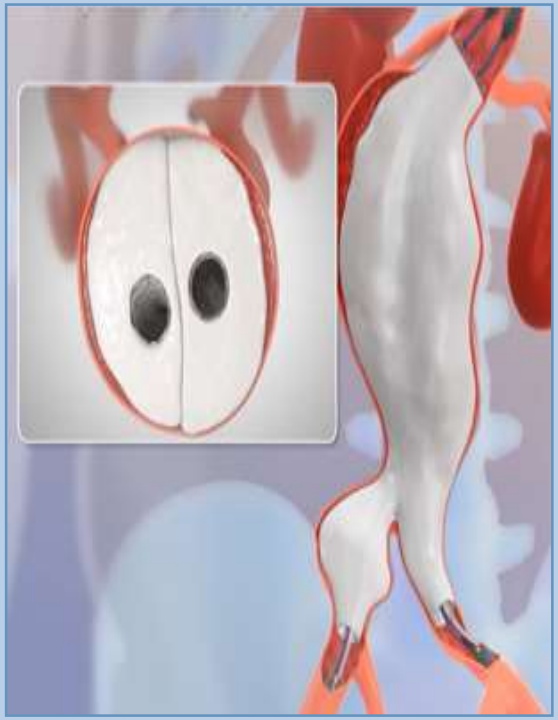
METHODS: EMBO-EVAR

Aneurysm sac angiogram

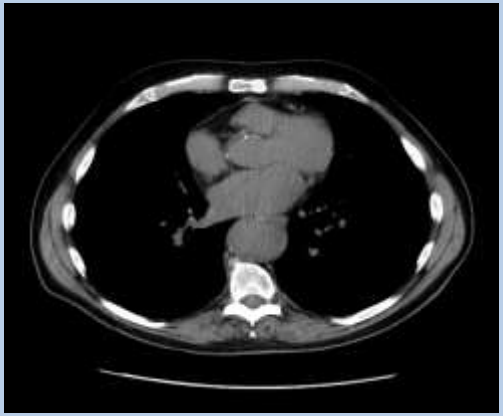
Sac Embolization: Coils and Tiseel

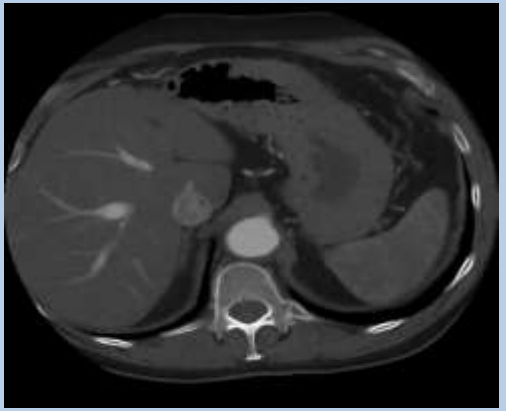
Postoperative angiogram

METHODS:
EVAS TECHNIQUE



Prefilling and Filling the endobags with polymere and final control angiogram

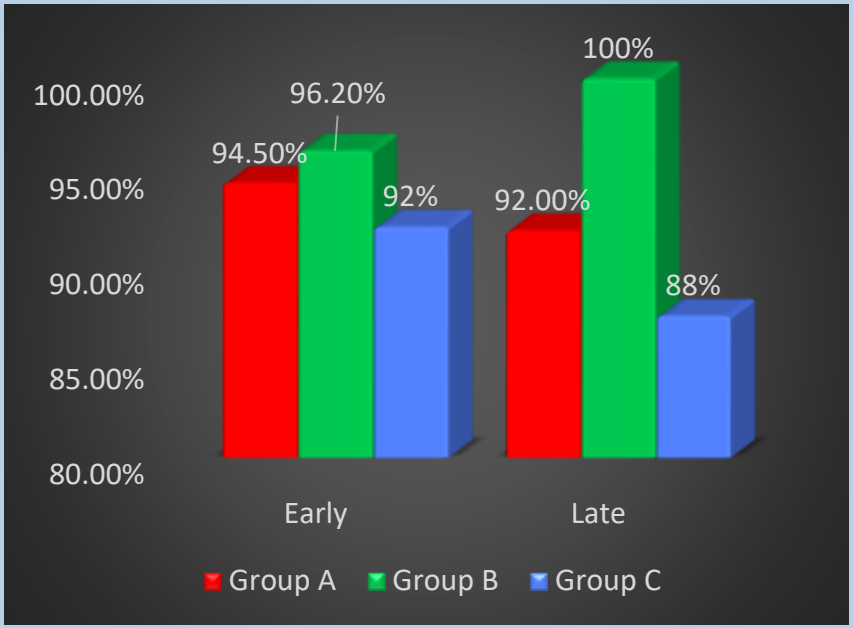




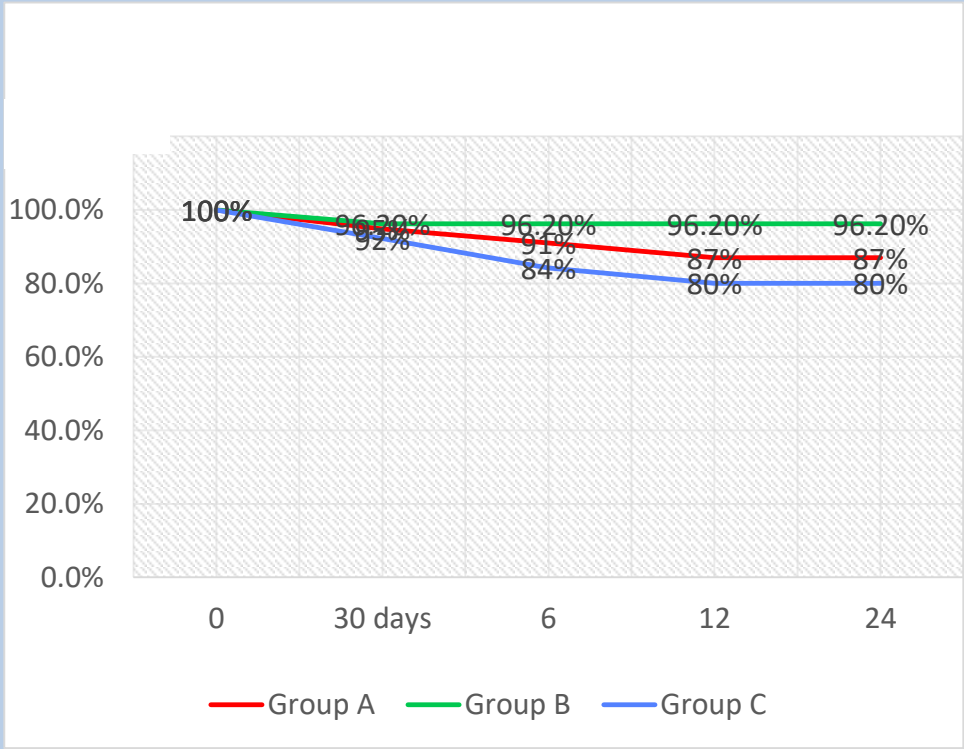
12 months Angio-CT scan

RESULTS

Freedom from type 2 Endoleak



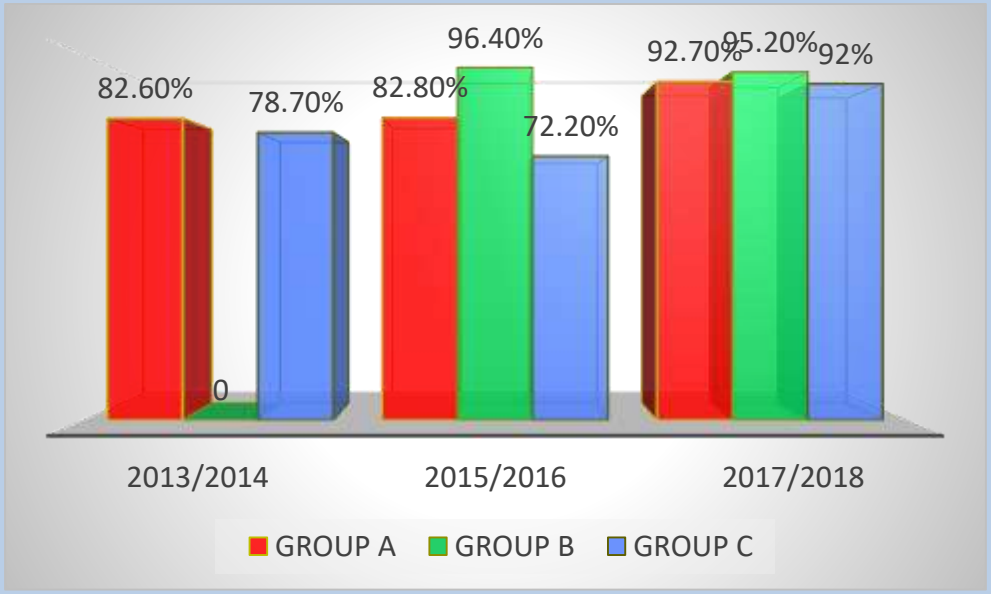
FU (months)	Group A (n=136)	Group B (n=78)	GroupC (n=64)
Early < 3 months	7 (5,2%)	3 (3,8%)	5 (7,8%)
Late > 6months	11 (8%)	0	8 (12,5%)



RESULTS

Freedom from type 2 Endoleak

T2EL	GROUP A	GROUP B	GROUP C
2013-2014	8 (17,4%)	0	7 (21%)
2015-2016	6 (17,1%)	2 (3,6%)	5 (27,7%)
2017-2018	4 (7,2%)	1 (4,7%)	1 (7,6%)



- Reduced incidence of T2EL in patients treated between 2017/2018

- In 2017/2018 patent IMA diameter, n. of patent lumbar arteries associated with a sacral or accessory renal artery, sac aneurysm volume, true aortic volume, aortic aneurysm anatomy were strictly considered

RESULTS

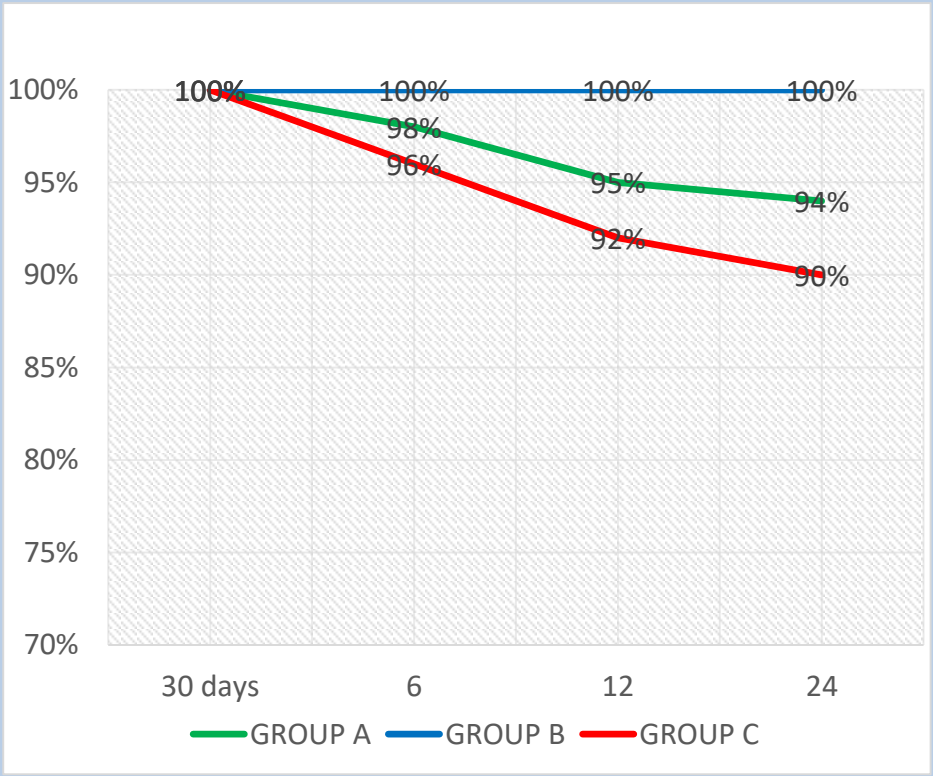
Spontaneous Resolution

FU (month)	Group A (n=18)	Group B(n=3)	GroupC (n=13)
6	3 (16%)	3 (100%)	2 (15%)
12	4 (23%)	0	3 (23%)
24	2 (11%)	0	1 (7%)

Persistent type 2 EL

Persistent T2EL	Group A (n=18)	Group B (n=3)	Group C (n=13)
Stable Diameter	3 (16%)	0	2 (15%)
Increasing Diameter	6 (33%)	0	5 (38%)

Freedom fron Reintervantion



CONCLUSIONS

- EVAS technique could represent a valid alternative to Embo-EVAR in high risk patients for type 2 EL

- Anatomical parameters (aneurysm diameter, n. of lumbar arteries, true lumen volume) must be considered to choose the most suitable technique

- A long term Follow-Up and a prospective randomized study are needed

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