



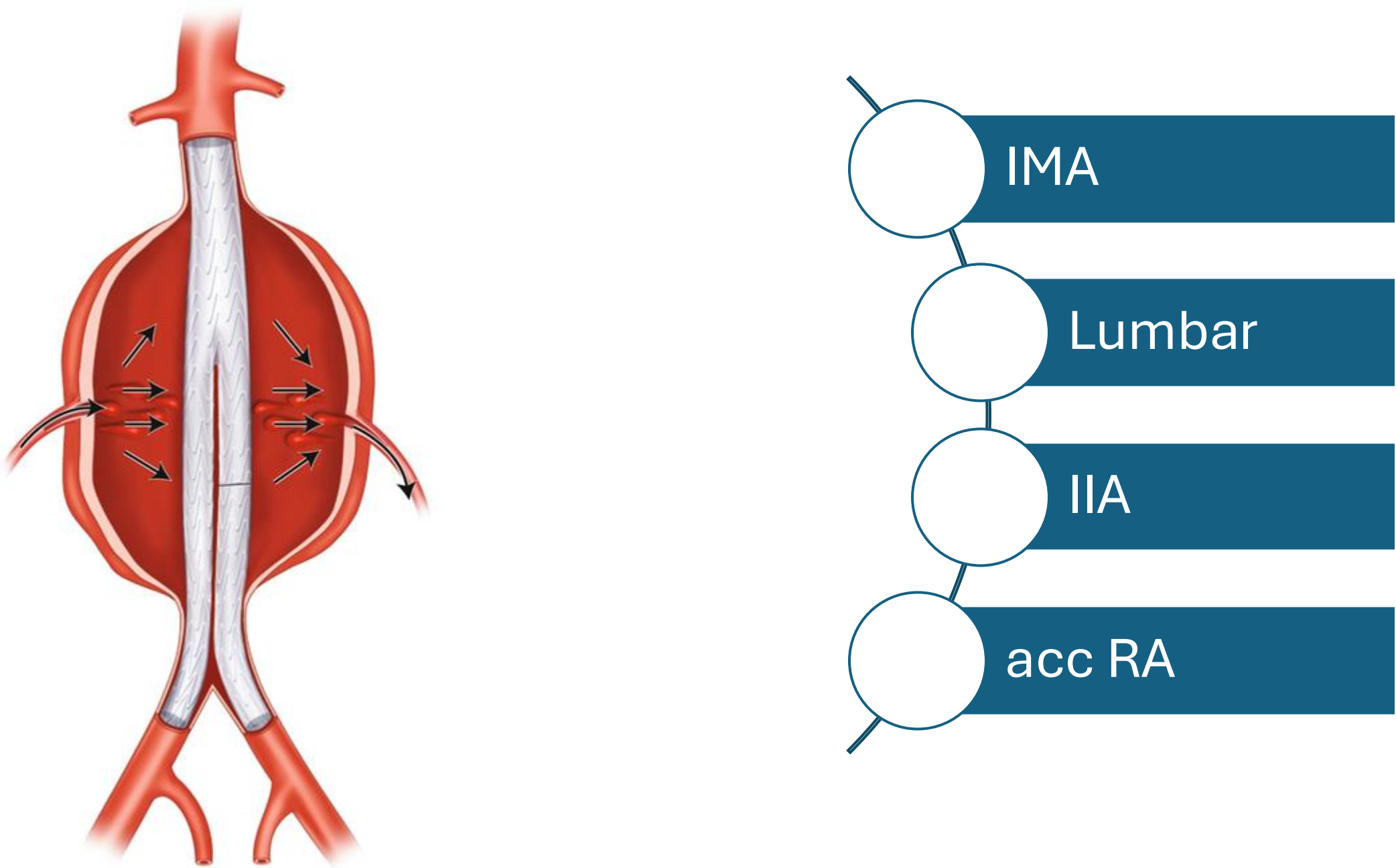
Single Session Preemptive Side Branch Embolization As A Treatment Option For Preventing Type 2 Endoleaks In Endovascular Aortic Repair

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Type II Endoleaks (T2EL)

Retrograde flow from side branches¹.



T2EL (most frequent type, up 44% after EVAR) ²	
Risk	Protective
Patent Lumbar/ IMA	Smoking
Vascular Dia >3 mm	PAD
Sac/Thrombus ratio $\searrow$	
Thrombus thickness	
Senility (>80 y)	

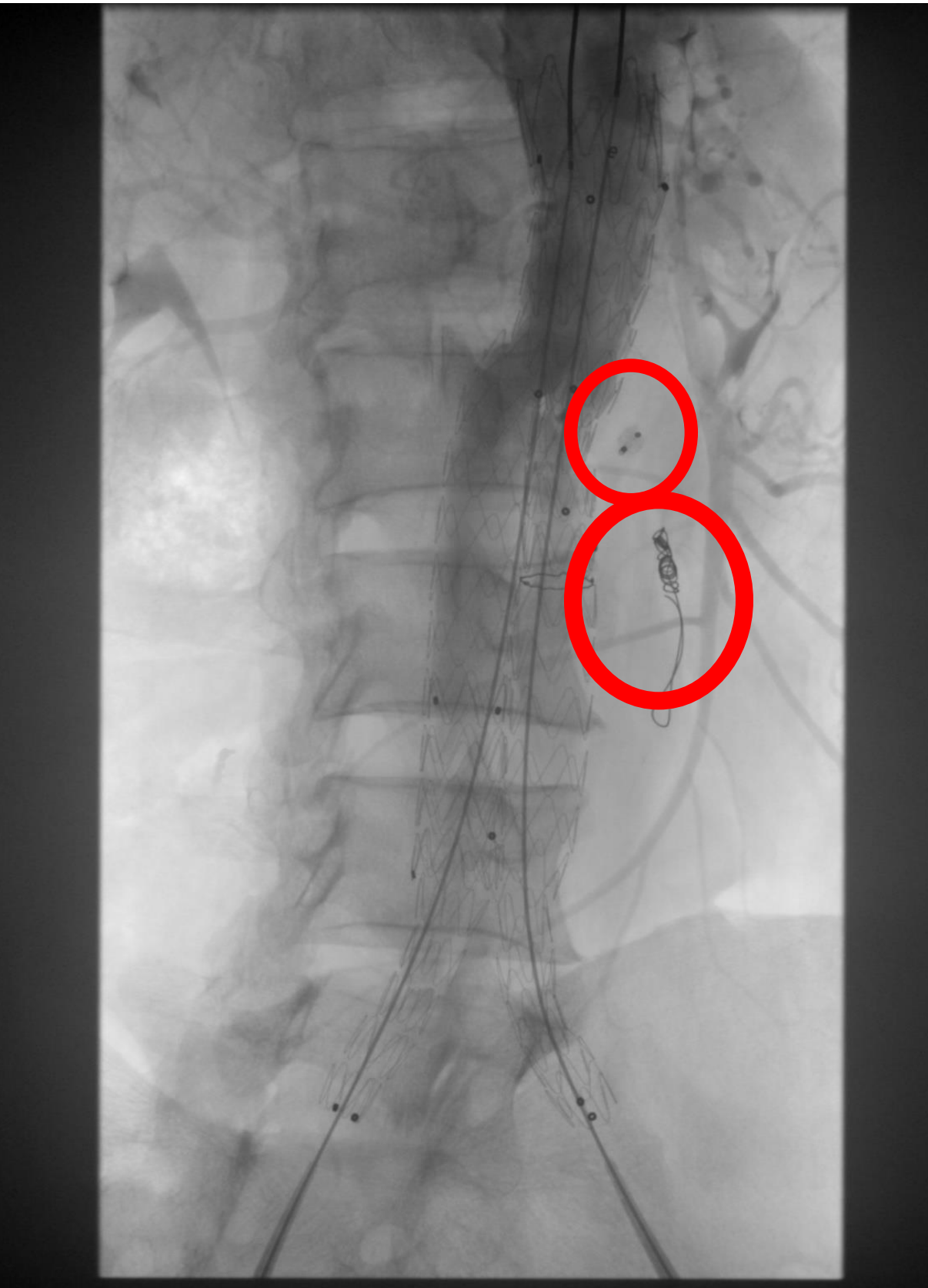


Jan 2019- Sep 2024
Single center, single surgical team.

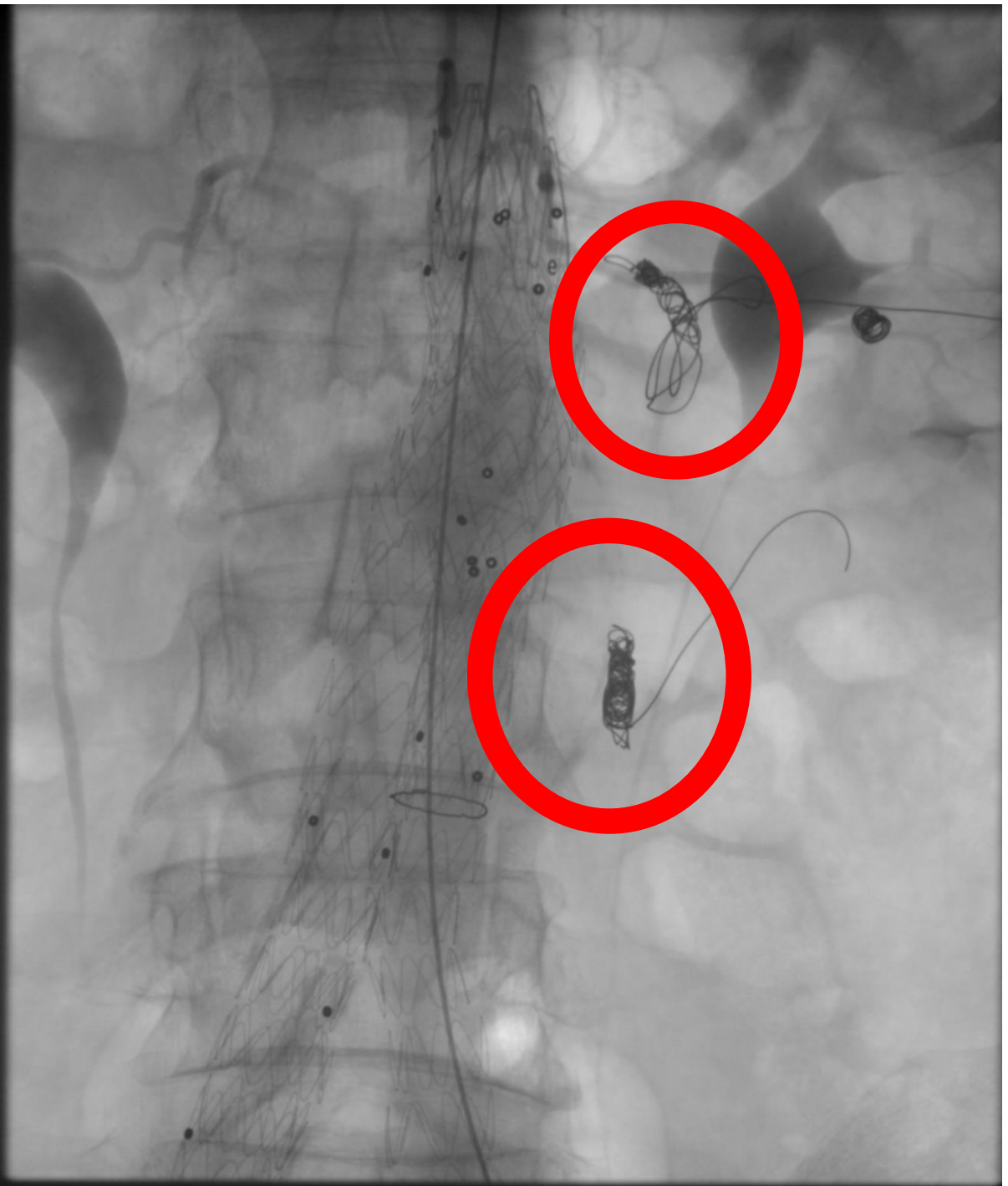
- Embolization criterias:**
- IIA embolization for CIAA and/or IIAA unsuitable for parallel stenting or branched device.
 - IMA embolization $\varnothing > 3$ mm
 - acc RA embolization $\varnothing > 3$ mm & feeding $< 1/3$

	Embolization +	Embolization -	Total
Patients	24	64	88
Women	2	6	8
T2EL+	2 (8.3%)	17 (26.6%)	19
T2EL-	22	47	69
Re-intervention	0	11	11
Chimney	1	5	6
Hypogastric embo	11	-	11
IMA	13	-	13
Acc RA	6	-	6
Multipl embo	6	-	6
Aneurysm-related death	0	0	0

Follow-up:
CTA (1m, 6m*, 12m, 60m)
Doppler USG T2EL+ > every 6 m
T2EL- > every 12 m



Pic.1 acc RA vascular plug, IMA coil embolization



Pic.2 acc RA and IMA coil embolization

Discussion
Our results revealed a lower incidence of T2EL and secondary interventions with preemptive embolization compared to no embolization. These results were consistent with the contemporary literature, including the RCT published by Samura et al.⁴ According to their study, IMA embolization during EVAR was associated with a reduction in T2EL and increased shrinkage of the aneurysmal diameter, as well as a lower incidence of aneurysmal sac growth related to T2EL.⁴ Although T2ELs were considered benign, and 30 to 50% resolve spontaneously⁵, 10% of T2ELs present with late Type I endoleaks³.

Limitations
Small sample size, single center, and retrospective design are limitations. Aneurysm volume analysis might be added.⁶

Conclusion
The results of the same-session preemptive embolization of the side branches are encouraging. Further investigation is warranted to ascertain the statistical significance of the relative risk reduction of the same session embolization.

References:

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