

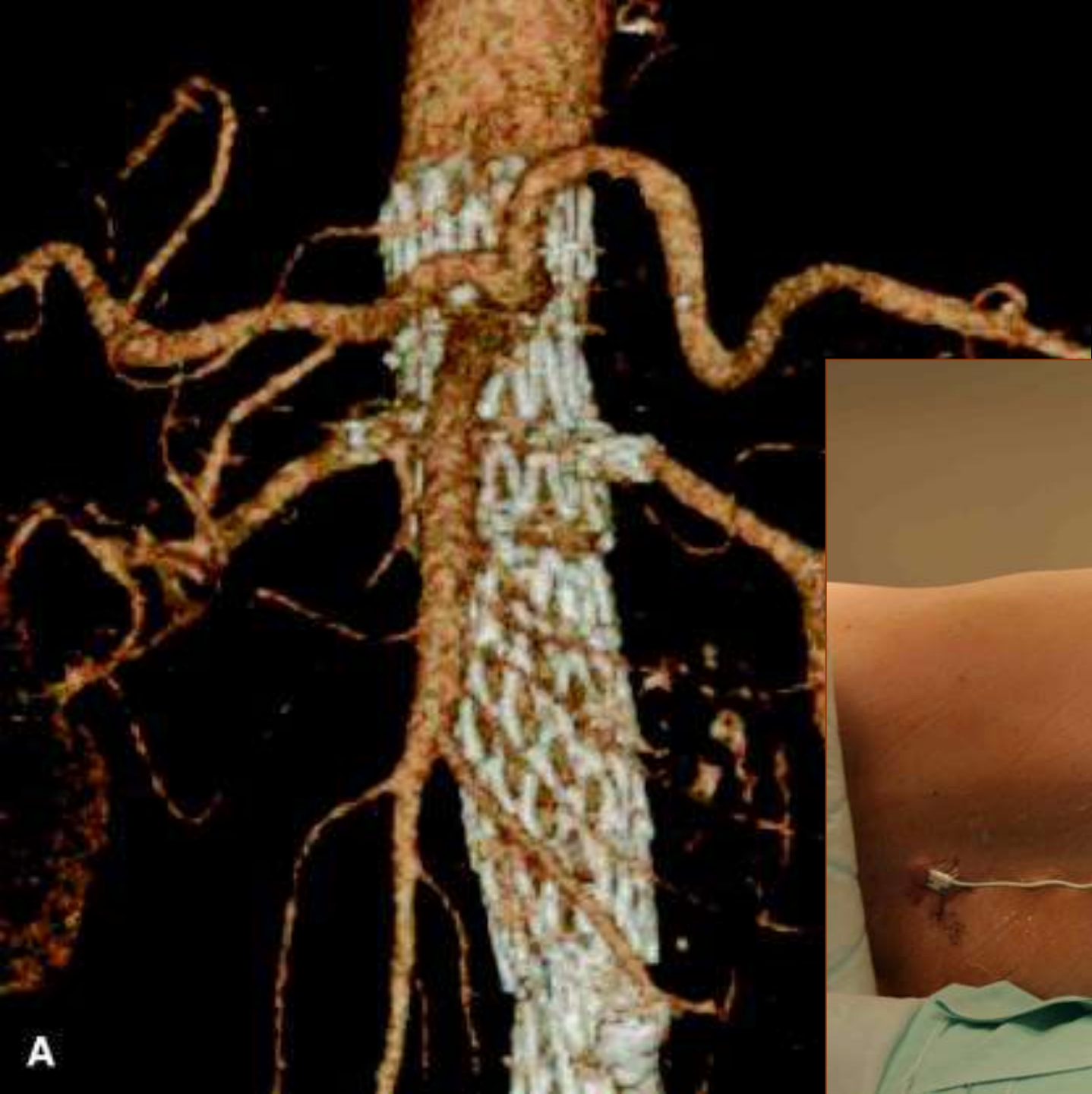
***Descending & Thoraco-abdominal aneurysms:
Prediction of spinal outcomes
using a near-systematic preoperative
screening with spinal angio-CT***

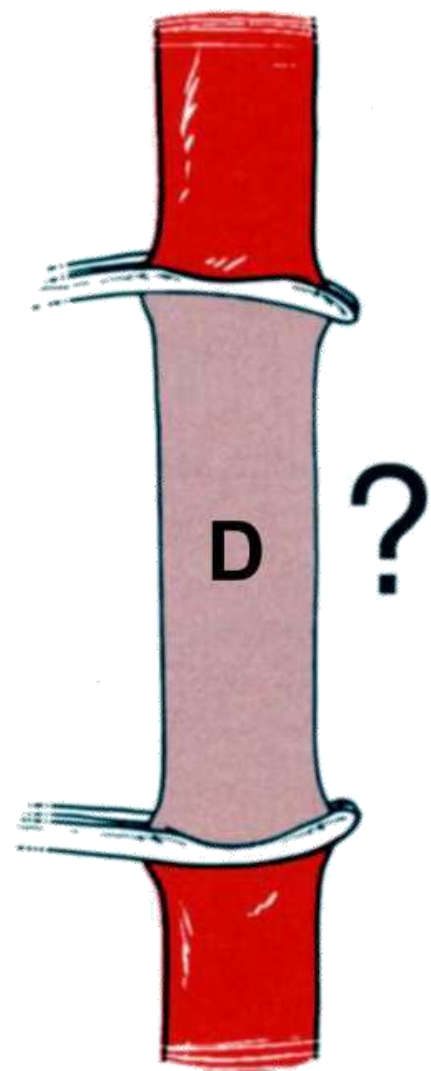
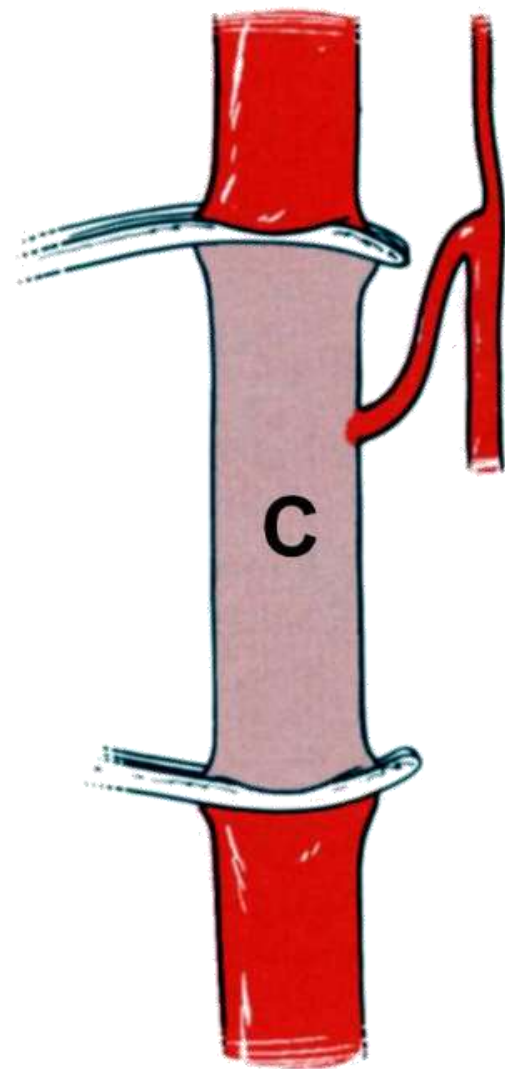
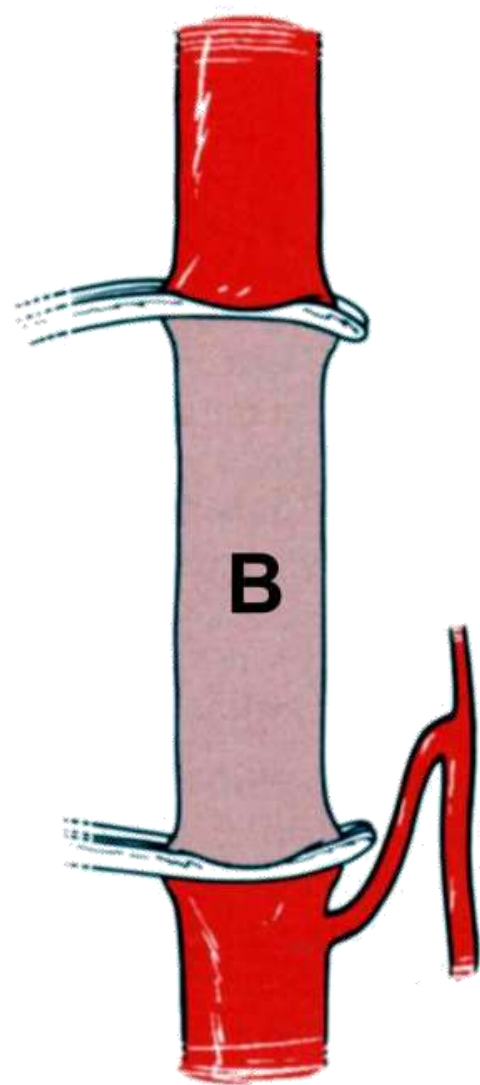
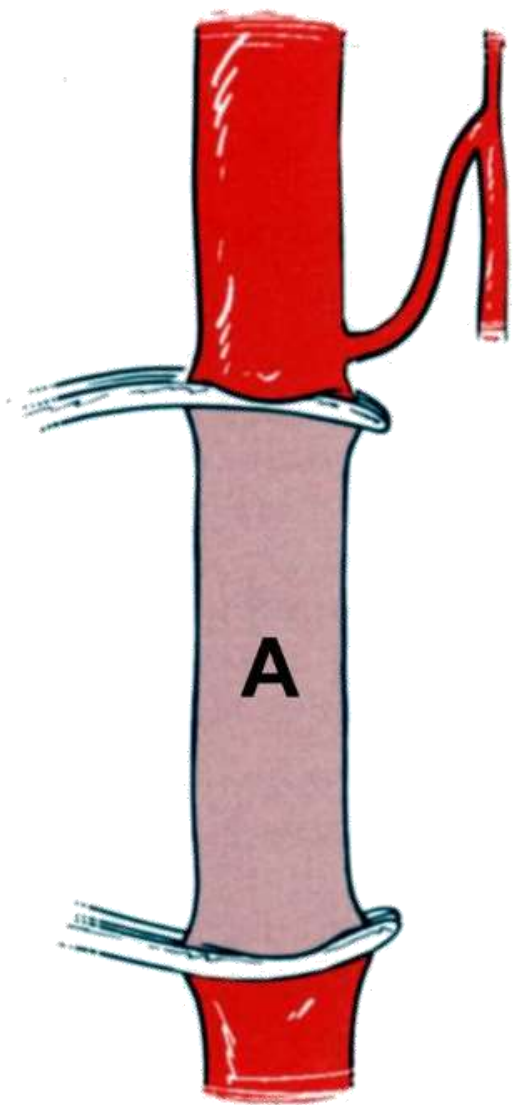
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Comparison of intra-aortic computed tomography angiography to conventional angiography in the presurgical visualization of the Adamkiewicz artery: first results in patients with thoracoabdominal aortic aneurysms

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Etiology 2004-2018	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Atheroma	201	50.5	105	41.0	92	46.9	204	72.6	314	86.3	916	61.3
Dissection	128	32.2	129	50.4	79	40.3	49	17.4	9	2.5	394	26.4
Other	69	17.3	22	8.6	25	12.8	28	10.0	41	11.3	185	12.4
Total	398	100.0	256	100.0	196	100.0	281	100.0	364	100.0	1495	100.0

Spinal angio 2004-2018	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Ak>	65	16.3	2	0.8	0	0.0	92	32.7	73	15.8	232	15.5
Ak<	107	26.9	52	20.3	0	0.0	0	0.0	56	12.1	215	14.4
Ak=	123	30.9	143	55.9	127	64.8	123	43.8	17	3.7	533	35.7
Ak?	48	12.1	19	7.4	64	32.7	16	5.7	5	1.1	152	10.2
Total done	343	86.2	216	84.4	182	92.9	231	82.2	151	32.6	1123	75.1
Not done	55	13.8	40	15.6	14	7.1	50	17.8	312	67.4	372	24.9
Total	398	100.0	256	100.0	196	100.0	281	100.0	463	100.0	1495	100.0

Choice of a technique

- **Screening of general and spinal risks**
- **In good general risk patients prefer open surgery and selective reinsertion of relevant intercostals**
- **In poor general risk patients prefer endovascular or hybrid surgery while delivering honest spinal information to patient**

Technique 2004-2018	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
X-TEVAR	154	38.7	8	3.1	6	3.1	12	4.3	6	1.6	186	12.4
Hybrid	0	0.0	40	15.6	26	13.3	38	13.5	15	4.1	119	8.0
Clamp	23	5.8	16	6.3	3	1.5	7	2.5	294	80.8	343	22.9
Perfusion	124	31.2	131	51.2	92	46.9	222	79.0	49	13.5	618	41.3
DHCA	97	24.4	61	23.8	69	35.2	2	0.7	0	0.0	229	15.3
Total	398	100.0	256	100.0	196	100.0	281	100.0	364	100.0	1495	100.0

Early result 2004-2018	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Death	12	3.0	15	5.9	19	9.7	11	3.9	9	2.5	66	4.4
Paraplegia	4	1.0	6	2.3	11	5.6	5	1.8	2	0.5	28	1.9
Paraparesis	4	1.0	10	3.9	13	6.6	6	2.1	1	0.3	34	2.3
Total	398	100.0	256	100.0	196	100.0	281	100.0	364	100.0	1495	100.0

Endo 2004-2018	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Death	1	0.6	3	6.3	5	15.6	3	6.0	1	4.8	13	4.3
Paraplegia	3	1.9	3	6.3	3	9.4	3	6.0	1	4.8	13	4.3
Paraparesis	2	1.3	2	4.2	2	6.3	2	4.0	1	4.8	9	3.0
Total	154	100.0	48	100.0	32	100.0	50	100.0	21	100.0	305	100.0

Open 2004-2018	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Death	11	4.5	14	6.7	20	12.2	10	4.3	11	3.2	53	4.5
Paraplegia	2	0.8	5	2.4	11	6.7	3	1.3	1	0.3	15	1.3
Paraparesis	2	0.8	10	4.8	11	6.7	4	1.7	0	0.0	25	2.1
Total	244	100.0	208	100.0	164	100.0	231	100.0	343	100.0	1190	100.0

Spinal injury	DTA		TAA I		TAA II		TAA III		TAA IV		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
with death	2	0.5	8	3.1	9	4.6	5	1.8	1	0.3	25	1.7
Paraplegia	4	1.0	6	2.3	11	5.6	5	1.8	2	0.5	28	1.9
Paraparesis	4	1.0	10	3.9	13	6.6	6	2.1	1	0.3	34	2.3
Total	10	2.5	24	9.4	33	16.8	16	5.7	4	1.1	87	5.8
Predicted	9	90.0	20	83.3	30	90.9	12	75.0	2	50.0	73	83.9
N	398	100.0	256	100.0	196	100.0	281	100.0	364	100.0	1495	100.0

Conclusion

- **Spinal Angio-CT with a one-shot selective control is an easy method for the prediction of spinal injuries after DTA and TAA open and endo repair**
- **Zero-paraplegia will remain a dream for a while**