

Supplementary Figure Legends

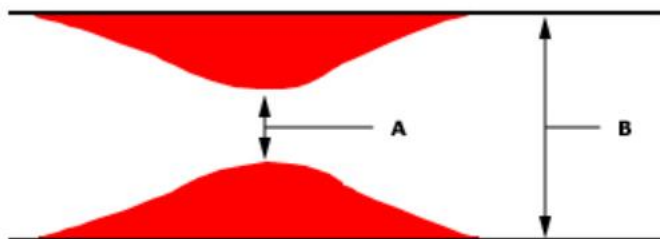
Supplementary Figure 1: Quantitative Angiogram using edge detection; A= Minimum Lumen Diameter; B = Reference Diameter

Supplementary Figure 2: (a) selective angiogram of right common carotid showing in stent restenosis; (b) quantitative angiogram of the same lesion using edge detection technique; (c) longitudinal analysis showing minimum lumen diameter, reference diameter and length of the lesion.

Supplementary Fig 3: Immediate Angiogram prior to stenting, immediately after stenting and after 6 months with: (a) Rt. CCA stented and at six months mild in stent growth is observed. (b) Lt CCA stented and at six months significant ISR is observed.

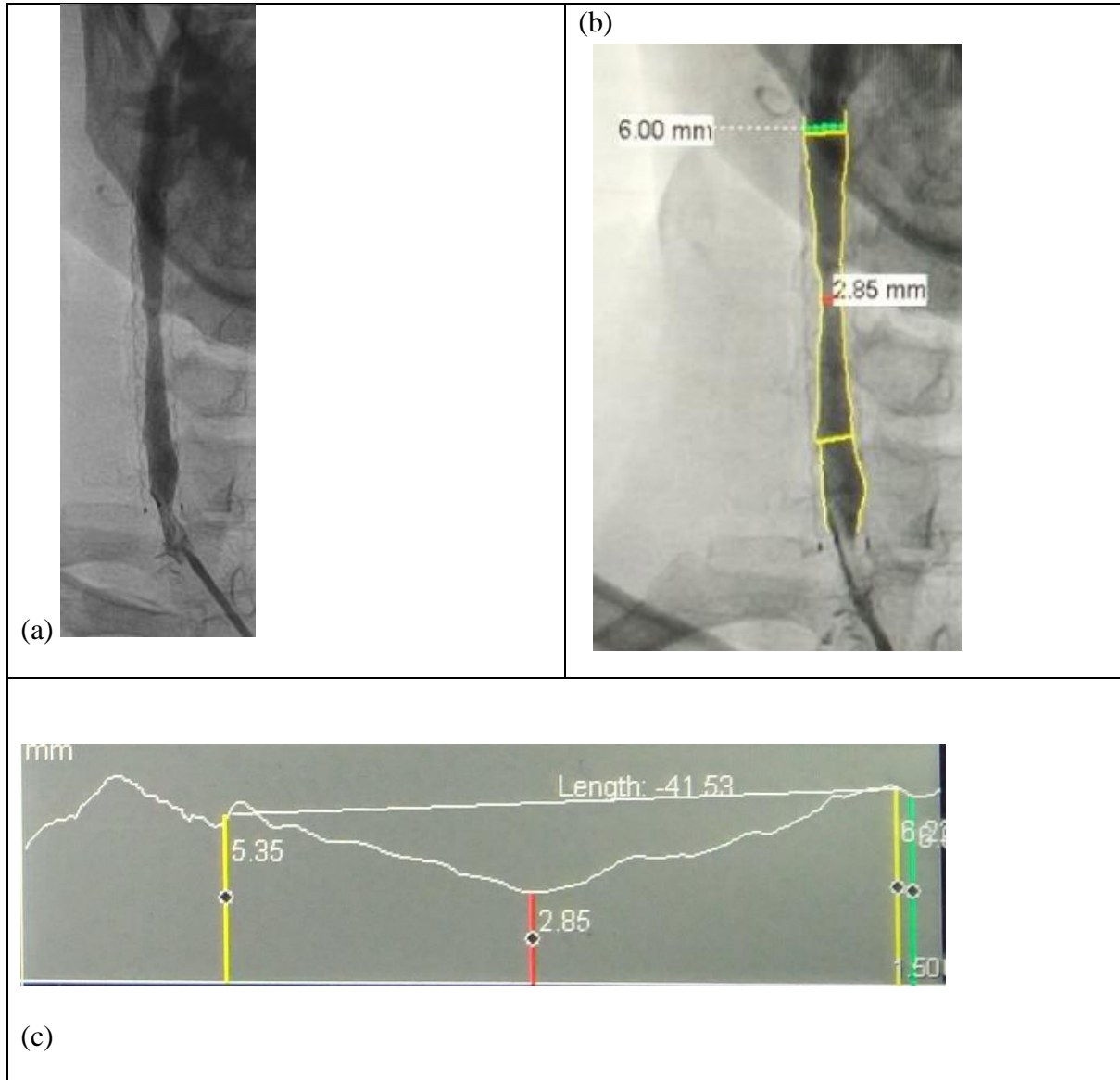
Supplementary Fig 4: Immediate Angiogram prior to stenting, immediately after stenting and after 6 months with DES: (a) Lt. VA stented and at six months 100% ISR is observed. (b) Lt CCA stented and at six months mild ISR is observed, (c) Lt. VA stented and at six months some ISR is seen; (d) Lt. VA stented and at six months 100% ISR is seen.

Supplementary Figure 1



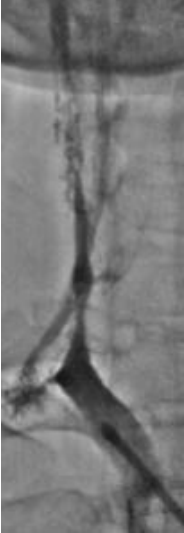




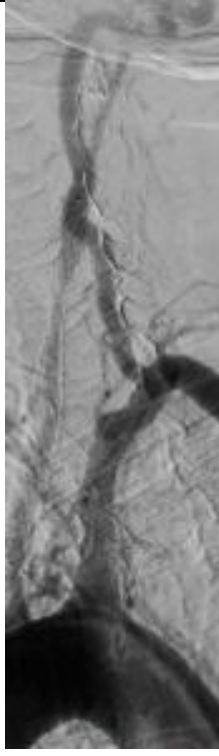
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Supplementary Figure 2

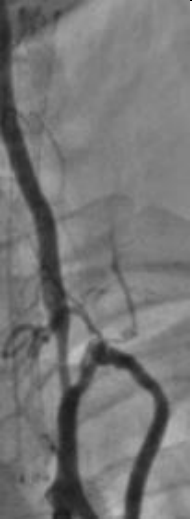
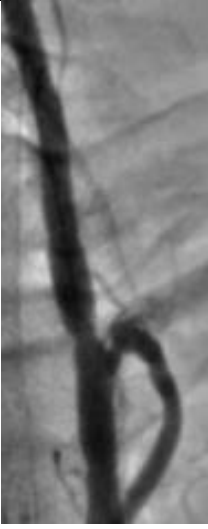
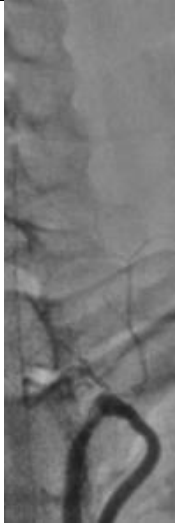
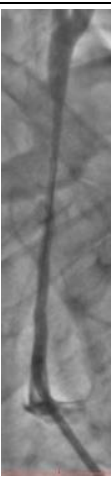




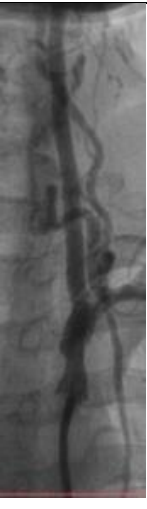


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Supplementary Figure 3

Lesion no.	Pre-Stenting	Post Stenting	Check Angiography
a.			
b.			

Supplementary Figure 4

Lesion no.	Pre-Stenting	Post Stenting	Check Angiography
a.			
b.			
c.		 W: 1573 [D]	



Source: original

Supplementary Table 1: Baseline parameters of the patients

		n (%) /Distribution [Mean \pmS.D. (Range)]	
Demographics	Age	Mean =26.33 \pm 7.48; Range (16-44)	
	Sex	Female= 17 (94.4%), Male =1 (5.6%)	
Symptoms	Claudication	16 (88.89)	
		Left Upper Limb	11 (61.11)
		Right Upper Limb	2 (11.11)
		Bilateral Upper Limb	3(16.67)
	Neck Pain	13 (72.2)	
	Syncope	12 (66.6)	
	Headache	6 (33.3)	
	Dyspnoea	3 (16.7)	
	Loss of Vision (One or Both Eyes)	5(26.8)	

	Hemiparesis	1(5.6)
Pulses Absent	Isolated Left Upper Limb	6 (33.33)
	Isolated Right Upper Limb	1(5.55)
	Bilateral Upper Limb	9(50)
	Isolated Left Carotid	5(27.78)
	Isolated Right Carotid	0(0)
	Bilateral Carotids	8(44.44)
Laboratory parameters	Haemoglobin	11.33 ±1.15 (9.4-13.3) g/dl
	ESR (erythrocyte sedimentation rate)	40.55±21.02(5-100)
	TLC (Total Leucocyte Count)	10172±2853(6900-15600)
	NLR (neutrophil:lymphocyte ratio)	2.98 ± 1.09 (1.16-5.60)
	CRP (qualitatively positive)	12 patients (66.66%)
	Platelet Count	3.09 ± 1.47 (1.48-6.68)
	Serum Urea	24.89±6.83 (17-38) mg/dl
	Serum Creatinine	0.75±0.25(0.4-1.5) mg/dl

Supplementary Table 2: Arch Vessel Involvement in study patients

	BCA	Rt. SCA	Lt. SCA	Rt. CCA	Lt. CCA	Rt. VA	Lt. VA
1	Not Involved	Not Involved	< 50%	Not Involved	79.93%	Not Involved	Not Involved
2	Not Involved	100%	71.08%	100%	100%	Not Involved	89.81%
3	Not Involved	<50%	99%	68.52%	99%	88.91%	Not Involved

4	Not Involved	100%	85.40%	Not Involved	Not Involved	Not Involved	Not Involved
5	Not Involved	<50%	79.87%	72.76%	Not Involved	Not Involved	80.13%
6	Not Involved	81.43%	100%	<50%	100%	Not Involved	Not Involved
7	Not Involved	85.30%	76.78%	Not Involved	92.81%	Not Involved	Not Involved
8	Not Involved	Not Involved	100%	Not Involved	93.11%	Not Involved	99.56%
9	Not Involved	Not Involved	78.20%	Not Involved	Not Involved	Not Involved	Not Involved
10	72.19%	<50%	100%	72.25%	70.46%	Not Involved	Not Involved
11	Not Involved	100%	100%	82.60%	99%	Not Involved	Not Involved
12	Not Involved	Not Involved	69.08%	91.4%	78.48%	Not Involved	Not Involved
13	Not Involved	Not Involved	90%	67.85%	99.89%	Not Involved	50%
14	Not Involved	77.87%	100%	79.68%	90%	Not Involved	Not Involved
15	Not Involved	Not Involved	83.65%	Not Involved	Not Involved	Not Involved	Not Involved
16	75.45%	100%	100%	78.66%	99%	85.44%	76.66%
17	Not Involved	100%	100%	89.12%	1(S 80%	Not Involved	Not Involved
18	Not Involved	76.65%	100%	78.66%	97.77%	Not Involved	67.75%

(BCA- Brachiocephalic Artery, SCA- Subclavian Artery, CCA- Common Carotid Artery, VA- Vertebral Artery)

Supplementary Table 3: Details of angiographic lesions and angioplasty procedural details (values in mm)

	Artery	Balloon	Type of Stent	Stent Dimension	Post dilation	Pre-stenting Diameter	Post-stenting Diameter	Pre-stenting Lesion (%)	Post-stenting Lesion (%)
1	Lt CCA	3×20,3.5×10 (cutting)	Bare Metal Stent Self-Expanding	6×18 7×80	3.5×10 4×12	1.07	3.78	79.93	29.67
2	Lt VA	VA-4.5×15	DES	4.5×37	5×8	0.28	3.72	89.81	14.86
	Lt. CCA	None	DES Self-Expanding	4.5×32 8×100	4.5×20	0.81	2.79	71.08	20.84
3	Rt CCA	1.5×15,2.75×15 (cutting)	DES	CCA-4×15 ICA-4×28	4×8	0.88	2.5	68.52	20.02
	Rt. VA	1.5×15,4×10 (cutting)	DES	4×15	4×8	0.50	2.89	88.91	8.62
4	Lt. SCA	4×20 6×20	DES	4×32	6×20	0.80	2.87	85.40	19.88
5	Rt. CCA	3.5×10(cutting)	Self-Expanding	8×60	6×20	0.47	4.63	72.76	14.58
	Lt. VA	NONE	DES	4×16	5×20	1.82	2.57	80.13	25.40
6	Rt. SCA	3×10 (Cutting)	Bare Metal Stent	6×14	NON E	2.13	3.91	81.43	21.52
7	Lt CCA	6×40 OTW	Self-Expanding	8×60	6×40	1.64	4.19	92.81	6.35

	Rt SCA	5×20 PB	Self- Expand ing	8×40	6×40	1.65	3.49	85.3	13.33
8	Lt CCA	3.5×15 (cutting)	Self- Expand ing	7×80	CCA - 6×20	0.29	3.89	93.11	21.13
	Lt. VA	5×120	DES	4×24	VA- 3.5× 8 4×8	0.03	2.63	99.56	11.25
9	Lt. SCA	6×20	Self- Expand ing	8×37	8×20	1.57	5.40	78.20	14.09
1 0	Lt. CCA	4×20	DES	4×33	NON E	1.47	3.10	70.46	16.24
	Rt. CCA	5×40	DES	4×38	NON E	1.31	2.52	72.25	24.29
	Rt.B CA		DES	4×13	NON E	1.57	4.37	72.19	24.97
1 1	Rt. CCA	5×15	Self- Expand ing	8×60	NON E	0.59	4.23	82.60	17.82
1 2	Rt CCA	3×10(cuttin g), 5×60	Self- Expand ing	8×60	6×20 5×60	0.49	5.57	70.68	11.21
	Lt CCA	4×10 (cutting), 6×40	Self- Expand ing	8×80	6×40	2.25	4.40	78.48	28.74
	Lt. SCA	3.5×10(cutti ng), 4×16	Self- Expand ing	7×40	5×20 , 6×20	1.12	4.36	69.08	28.98
1 3	Lt. CCA	3.5×20;4×3 0	Self- Expand ing	8×100	4×30	0.20	2.65	99.89	24.67
1 4	Rt. CCA	5×20	Self- Expand ing	7×60		1.43	2.50	79.68	30.70
1 5	Lt CCA	3×32	Self- Expand ing	7× 80 6×18	4×40	0.60	3.20	97.77	23.45

			Bare Metal Stent						
1 6	Lt CCA	4×20	Self- Expand ing	7×60	6×20	1.08	4.41	89.12	21.52
1 7	Lt SCA	2×10 4×12	DES	4.5×24	5×15	1.23	3.69	83.65	27.96
1 8	Rt VA	2×10	DES	3.5×33	4×8	1.33	3.55	85.44	26.77
	Rt CCA	3×10	DES	4×23	4×12	1.22	3.44	78.66	25.77

(BCA- Brachiocephalic Artery, SCA- Subclavian Artery, CCA- Common Carotid Artery, VA- Vertebral Artery)

Supplementary Table 4: Immediate Angiographic Success in SES (values in mm)

Parameter	Pre-Angioplasty	Post Angioplasty	P value
Diameter	1.0±0.6	4.0±1.0	<0.001
Percentage Stenosis	81.0±9.6	20.2±8.0	<0.001

(SES- Self Expandable Stent)

Supplementary Table 5: Angiographic data at six-month follow-up with SES

No.	Artery	MLD before stenting(m m)	MLD after stenting(mm)	MLD at six months(m m)	Net Luminal Gain at six months(mm)
1	RT. CCA	0.49	5.57	3.07	2.58
2	LT. CCA	2.25	4.40	2.63	0.38
3	LT. SCA	1.12	4.36	0.45	-0.67
4	LT SCA	1.57	5.40	4.66	3.09

5	LT CCA	0.29	3.89	1.43	1.14
6	RT CCA	0.47	4.63	0.51	0.04
7	LT CCA	1.64	4.19	3.44	1.80
8	RT SCA	1.65	3.49	2.03	0.38
9	RT CCA	0.59	4.23	2.85	2.26
10	LT CCA	0.20	2.65	0.46	0.26
11	LT CCA	0.81	2.79	0.44	-0.37
12	LT CCA	1.07	3.78	1.69	0.62
13	RT CCA	1.43	2.50	2.12	0.69

(SES-Self Expandable Stent, BCA- Brachiocephalic Artery, SCA- Subclavian Artery, CCA- Common Carotid Artery, VA-Vertebral Artery, MLD- Minimal Luminal Diameter)

Supplementary Table 6: Immediate Angiographic Success in DES (values in mm)

Parameter	Pre-Angioplasty	Post Angioplasty	P value
Diameter	1.0±0.5	3.1±0.6	<0.001
Percentage Stenosis	79.6±9.5	20.5±5.9	<0.001

(DES- Drug Eluting Stent)

Supplementary Table 7: Angiographic details at six months with DES

No.	Artery	MLD before stenting(mm)	MLD after stenting(mm)	MLD at six month(mm)	Net Luminal Gain at six months(mm)
1	LT VA	0.03	2.63	0	-0.03

2	RT VA	0.50	2.89	2.55	2.05
3	RT CCA	0.88	2.5	0.84	-0.04
4	RT CCA	0.88	2.5	0.84	-0.04
5	LT VA	1.82	2.57	0	-1.82
6	RT CCA	1.31	2.52	1.68	0.37
7	BCA	1.57	4.37	3.66	2.09
8	LT CCA	1.47	3.1	0.6	-0.87
9	LT SCA	0.80	2.87	2.14	1.34
10	LT CCA	0.81	2.79	0.44	-0.37
11	LT VA	0.28	3.72	2.01	1.73

(DES-Drug Eluting Stent, BCA- Brachiocephalic Artery, SCA- Subclavian Artery, CCA- Common Carotid Artery, VA-Vertebral Artery, MLD- Minimal Luminal Diameter)