Table 1. Baseline data for patient between the groups using the Neuroform Atlas stent and LVIS Jr stent

Variable	Neuroform Atlas (n = 66)	LVIS Jr (n = 69)	P-value
Sex [n (%)]			
Male	32(48.5)	27(39.1)	0.273[c]
Female	34(51.5)	42(60.9)	
Age (years, mean ± SD)	58.68±9.85	58.87±9.43	0.910[a]
Preoperative comorbidity [n (%)]			
Hypertension	28(42.4)	37(53.6)	0.193[c]
Diabetes	14(21.2)	19(27.5)	0.393[c]
Hyperlipidemia	12(18.2)	13(18.8)	0.922[c]
Smoking	17(25.8)	21(30.4)	0.546[c]
Aneurysm size			
Aneurysm dome [mm, M (Q1, Q3)]	4.80(4.18,5.70)	4.60(3.65,5.65)	0.163[b]
Aneurysm neck [mm, M (Q1, Q3)]	3.60(3.03,4.20)	3.20(2.60,4.25)	0.220[b]
Dome-to-neck [ratio, M (Q1, Q3)]	1.28(1.12,1.44)	1.40(1.13,1.67)	0.158[b]
Aneurysm location [n (%)]			
AcomA	27(40.9)	33(47.8)	0.419[c]
M1	23(34.8)	13(18.8)	0.036[c]
A2	8(12.1)	11(15.9)	0.523[c]
M2	5(7.6)	8(11.6)	0.429[c]
Basilar tip/P1	3(4.5)	4(5.8)	1.000[d]
Aneurysm morphology n (%)			
Saccular shape	55(83.3)	56(81.2)	0.741[c]
Irregular shape	11(16.7)	13(18.8)	
Immediate aneurysm occlusion [n (%)]			
Complete occlusion (RR I)	56(84.8)	51(73.9)	0.117[c]
Incomplete occlusion (RR II, IIIa, IIIb)	10(15.2)	18(26.1)	
Parent-artery diameter (mm, mean ± SD)	1.86±0.12	1.87±0.11	0.639[a]
Parent artery diameter mismatch ratio [M (Q1, Q2)]	1.09(1.06,1.15)	1.12(1.08,1.16)	0.068[b]
Parent artery stenosis [n (%)]	13(19.7)	11(15.9)	0.568[c]
Stent angles [°, M (Q1, Q3)]	62.30(55.42,66.77)	63.86(56.10,70.07)	0.713[b]
Stent apposition [n (%)]			
Complete stent apposition	65(98.5)	58(84.1)	0.003[c]
Incomplete stent apposition (I, II, III)	1(1.5)	11(15.9)	

[a]Student's *t*-test; [b]Mann–Whitney *U*-test; [c]chi-square test; [d]Fisher's exact test

Table 2. Univariate analysis of the factors associated with incomplete stent apposition of unruptured intracranial aneurysms treated with Neuroform Atlas or LVIS Jr stents

Variable	Complete-apposition (n = 123)	Incomplete-apposition (n = 12)	P-value
Sex [n (%)]			
Male	54(43.9)	5(41.7)	0.882[c]
Female	69(56.1)	7(58.3)	
Age (years, mean ± SD)	58.81±9.66	58.42±9.43	0.892[a]
Preoperative comorbidity [n (%)]			
Hypertension	60(48.8)	5(41.7)	0.638[c]
Diabetes	29(23.6)	4(33.3)	0.487[d]
Hyperlipidemia	23(18.7)	2(16.7)	1.000[d]
Smoking	34(27.6)	4(33.3)	0.739[d]
Aneurysm size			
Aneurysm dome [mm, M (Q1, Q3)]	4.70(3.80,5.60)	5.50(4.70,6.28)	0.022[b]
Aneurysm neck [mm, M (Q1, Q3)]	3.40(2.70,4.20)	3.85(3.50,5.13)	0.044[b]
Dome-to-neck [ratio, M(Q1, Q3)]	1.33(1.13,1.50)	1.41(1.11,1.62)	0.613[b]
Aneurysm location [n (%)]			
AcomA	54(43.9)	6(50.0)	0.685[c]
M1	34(27.6)	2(16.7)	0.515[d]
A2	17(13.8)	2(16.7)	0.677[d]
M2	12(9.8)	1(8.3)	1.000[d]
Basilar tip/P1	6(4.9)	1(8.3)	0.487[d]
Aneurysm morphology n (%)			
Saccular shape	102(82.9)	9(75.0)	0.447[d]
Irregular shape	21(17.1)	3(25.0)	
Immediate aneurysm occlusion [n (%)]			
Complete occlusion (RR I)	99(80.5)	8(66.7)	
Incomplete occlusion (RR II, IIIa, IIIb)	24(19.5)	4(33.3)	0.271[d]
Parent-artery diameter (mm, mean ± SD)	1.87±0.12	1.90±0.09	0.363[a]
Parent-artery diameter mismatch ratio [n (%)]			
≥1.25	16(13.0)	6(50.0)	0.005[d]
<1.25	115(93.5)	7(58.3)	
Parent-artery stenosis [n (%)]	19(15.4)	5(41.7)	0.039[d]
Stent type [n (%)]			
Neuroform Atlas	65(52.8)	1(8.3)	0.003[c]
LVIS Jr	58(47.2)	11(91.7)	
Stent diameter [mm, M (Q1, Q3)]	3.0(2.5,3.0)	2.5(2.5,2.9)	0.213[b]
Stent length [mm, M (Q1, Q3)]	21(17,23)	19(17,23)	0.779[b]
Stent angles [n (%)]			
≥75°	13(10.6)	4(33.3)	0.046[d]
<75°	110(89.4)	8(66.7)	

[a]Student's *t*-test; [b]Mann–Whitney *U*-test; [c]chi-square test; [d]Fisher's exact test

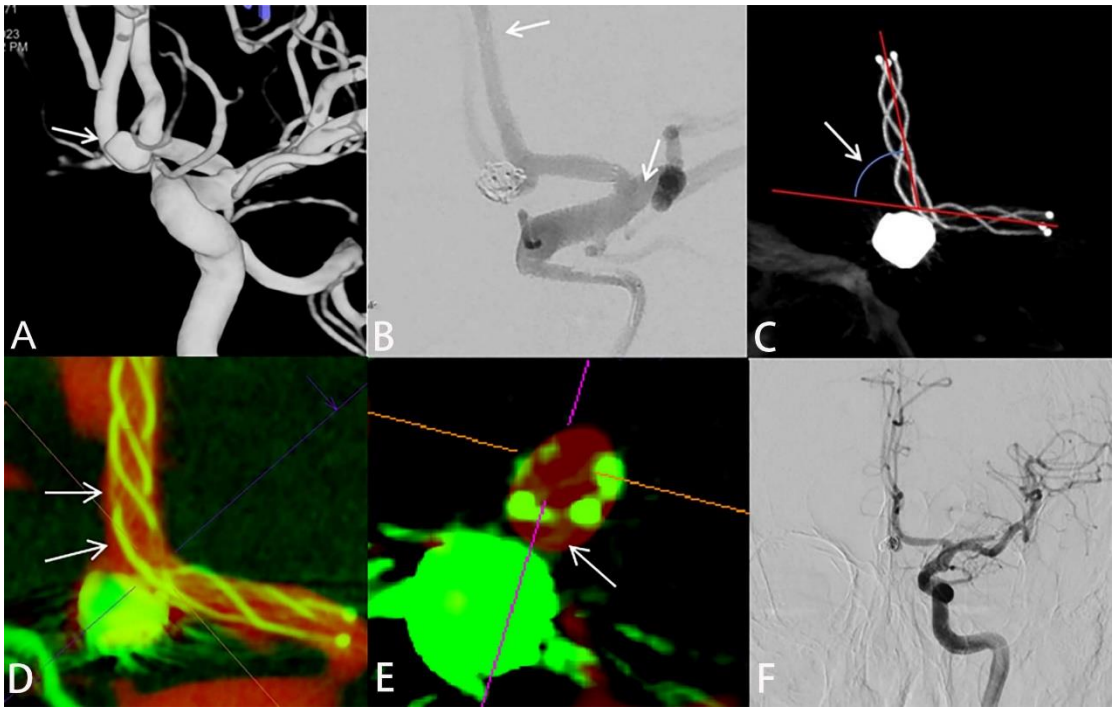

Fig.4. Use of a LVIS Jr stent in SAC for the treatment of an unruptured anterior communicating artery aneurysm. **A.** 3D-DSA suggests an aneurysm of an anterior communicating artery, with a saccular shape and size of 2.3 mm × 2.8 mm. The parent-artery diameter is 1.87 mm, and the diameter ratio is 1.15 (aneurysm is shown by a white arrow). **B.** SAC using a LVIS Jr stent (2.5 mm × 23 mm) was undertaken, and the aneurysm occlusion density was Raymond–Roy class I (white arrow indicates the end of the stent). **C.** HR-CBCT shows that the stent was completely deployed and that the angle of stenting was 68.63°. **D–E.** These images were obtained by the dual-volume fusion reconstruction method. A type-II "crescent" incomplete stent apposition at the greater curvature of the stent at the aneurysm neck can be observed in sagittal and transverse planes. (white arrow shows incomplete apposition in the endovascular lumen). **F.** DSA follow-up at 6 months shows the coils in the aneurysm to be compressed, and the aneurysm has recurred.