Supplementary data

Supplementary Appendix 1. List of all investigators of the DISCO registry

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Supplementary Table 1. Presenting characteristics.

Presenting characteristics	
	N=373
Clinical presentation	
- ACS	359 (96.2)
STEMI	170 (45.6)
NSTEMI	189 (50.7)
- Unstable angina	1 (0.3)
- Other	13 (3.5)
Initial cardiac arrest	21 (5.6)
Trigger	
- Emotional stress	170 (45.6)
- Physical stress	46 (12.3)
- Consumption of toxics	10 (2.7)
Troponin elevation	352 (94.4)
Initial treatment	
- Anticoagulant therapy	280/362 (77.3)
- Antiplatelet therapy	
Aspirin	319/361 (88.3)
DAPT	252/361 (69.8)
GP IIb/IIIa inhibitors	14/361 (4.4)
- Fibrinolysis	14 (3.9)
- Vasopressive agent	5 (1.4)
Angiographic characteristics	
Single-vessel SCAD	351 (94.1)
Multivessel SCAD	22 (5.9)
LM involved	8 (2.1)
LAD involved	221 (59.2)
LCX involved	113 (30.3)
RCA involved	63 (16.9)
Angiographic signs	N=373
Absence of atheroma	361 (96.8)
Radiolucent flap	61 (16.3)
Radiocontrast agent stagnation	61 (16.3)
Starting and ending on side branch	304 (81.5)
Long and smooth narrowing	313 (83.9)
Number of arteries involved	405
Angiographic SCAD type	N=405
Type 1	59 (14.6)
Type 2	285 (70.4)

Type 3	35 (8.6)
Mixed type	26 (6.4)
TIMI flow	N=405
0	77 (19.0)
1	27 (6.7)
2	52 (12.8)
3	249 (61.5)
QCA analysis, median (Q1-Q3)	N=405
Lesion length, mm	40 (25-50)
Diameter stenosis, %	90.3 (77.2-96.7)
Reference diameter, mm	2.6 (2.2-3.0)

Details are shown as mean, n (%).
ACS: acute coronary syndrome; DAPT: dual antiplatelet therapy; LAD: left anterior descending artery; LCX: left circumflex artery; LM: left main; NSTEMI: non-ST-segment elevation myocardial infarction; QCA: quantitative coronary angiography; RCA: right coronary artery; SCAD: spontaneous coronary artery dissection; STEMI: ST-segment elevation myocardial infarction

Supplementary Table 2. Follow-up and MACE rate in Conservative group versus PCI group.

	Conservative N=314	**PCI N=58**	***p*-value**
CPK peak, UI/l	325 [148-690]	986 [376-1,365]	$p<0.01$
Left ventricle ejection fraction, %	60 [59-65]	60 [50-62]	p=ns
Length of hospital stay, days	5 [3-8]	6 [4-9]	$p=0.21$
SCAD recurrence, %	8 (2.5)	4 (6.9)	$p=0.08$
MACE, %	32 (10.2)	13 (22.4)	$p<0.01$

Supplementary Table 3. Association analysis between rs9349379 (PHACTR1) and SCAD stratified according to the presence of fibromuscular dysplasia in the DISCO study.

Case control study	**n**	**GG**	**GA**	**AA**	**EAF**	**OR**	**(95% CI)**	***p*-value**
All SCAD patients	313	21	128	164	0.73	1.66	(1.38-1.99)	7.08×10^{-8}
SCAD with FMD	140	7	53	80	0.76	1.96	(1.49-2.61)	2.31×10^{-6}
SCAD without FMD	152	11	63	78	0.72	1.59	(1.24-2.06)	3.79×10^{-4}
Controls (PPS3)	3,468	505	1,636	1,327	0.62			

The rs9349379-A (adenine) allele showed a higher prevalence among SCAD patients and its frequency was estimated to be 0.73 compared to a frequency of 0.62 in the controls and was significantly associated with increased risk for SCAD.
A: adenine; EAF: effect allele frequency; FMD: fibromuscular dysplasia; G: guanine; OR: odds ratio