

Tables:

Table 1: Baseline characteristics of the 120 patients with SCA

(2 out of the 122 patients had no clinical data available)

Patients with ACS	Carrier (8)	Non-carrier (112)
Age (yo)		
Mean	44.7+/-7	43.5+/-7
Median	42	44
Gender ratio (men/women)	7/ 1	91 /21
Risk factor		
Tobacco	100% (8/8)	80% (89/112)
Diabetes	13% (1/8)	21% (23/109)
Insulin-resistance	0%	4% (5/112)
Hyperglycemia	63% (5/8)	49% (55/112)
Glucose (mmol.L)	8.5+/-5.0	7.6+/-5.5
Hb glyated	6.78%	6.23% (92/112)
Hypertriglyceridemia	14% (1/7)	36% (41/112)
Triglyceridemia (mmol.L)	1.4+/-0.6 (7/8)	2.0+/-1.3(104/112)
Cholesterol (mmol.L)	4.2+/-1.6 (7/8)	3.8+/-2.0 (104/112)
LDL (mmol.L)	2.9+/-1.7 (6/8)	2.2+/-1.5 (98/112)
HDL (mmol.L)	0.8+/-0.1 (6/8)	0.8+/-0.5 (98/112)
Dyslipidemia	38% (3/8)	34% (38/112)
Hypertension	25% (2/8)	26% (29/112)
Obesity/overweight	75% (6/8)	67% (74/110)
BMI	27.7+/-4.9	27.7+/-4.8
CRI	0%	4% (4/98)
Acute complication post ACS	0%	12% (13/110)
Recurrence	25% (2/8)	31% (35/112)
Familial history	50% (4/8)	37% (41/112)

Table 2: Bioinformatics software prediction and allelic frequencies in GnomAD:
<http://gnomad.broadinstitute.org/> for the 4 mutations identified in *PLIN1*.

Nucleotide change in the <i>PLIN1</i> gene (rs)	Amino acid change	UMD predictor (score)	Polyphen 2.0 (score)	Sift (score)	Mutation taster (score)	Allelic frequencies in GnomAD
c.245C>T rs150004289	p.Thr82Ile	Probable Polymorphism (59)	Probably Damaging (0.999)	Damaging (0.008)	Disease causing (0.632)	266/200168
c.269T>C rs139271800	p.Leu90Pro	Pathogenic (93)	Probably Damaging (1)	Damaging (0.003)	Disease causing (1)	62/203464
c.820C>T rs8179070	p.Arg274Trp	Probable Pathogenic (69)	Probably Damaging (1)	Damaging (0.013)	Polymorphism	84/195866
c.839G>A rs146721183	p.Arg280Gln	Probably Pathogenic (72)	Probably Damaging (0.988)	Tolerated (0.302)	Polymorphism	11/205046

Table 3: Risks associated with the presence of the mutations (control: GnomAD and cohort: 122 patients with Precocious ACS)

Allele's frequencies (%)						
Mutation	Control	Cohort	OR	95%CI		<i>p</i>
c.245C>T	0.001	0.020	15.722	6.432	38.430	10 ⁻⁴
c.269T>C	0.0003	0.004	13.501	1.865	97.754	0.073
c.820C>T	0.0004	0.004	9.592	1.330	69.164	0.100
c.839G>A	0.00006	0.004	76.706	9.865	596.427	0.014