

The impact of body mass index on clinical and limb outcome in patients with peripheral artery disease after endovascular treatment



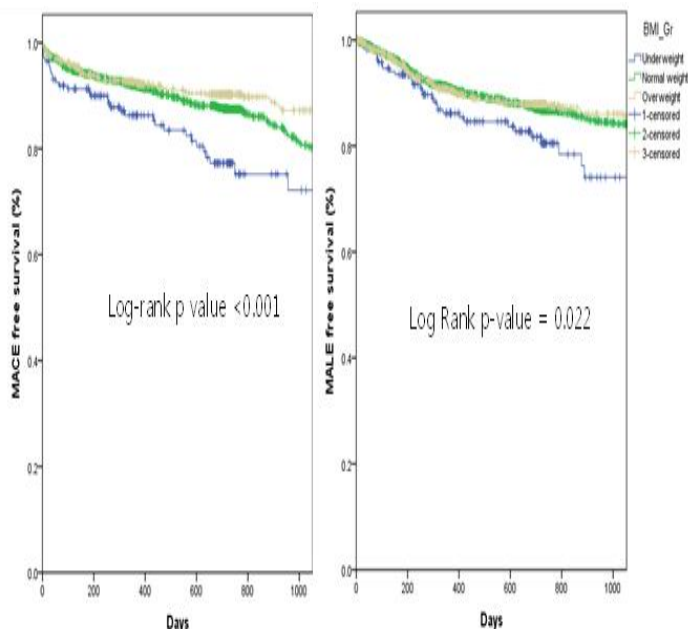
Hoyoun Won, Wang Soo Lee, Sang-Wook Kim, Young-Guk Ko, Donghoon Choi

Cardiovascular arrhythmia center, Chung-ang university hospital, Seoul, Korea, Division of Cardiology, Severance Cardiovascular hospital, Seoul, Korea

Obesity has been traditionally considered as risk factor of atherosclerotic disease. However, there are few data for the clinical impact of body mass index after peripheral artery angioplasty.

We investigate the relationship between body mass index (BMI) and mid-term outcomes of patients with peripheral artery disease after endovascular treatment.

MACE & MALE free survival



Conclusions: Underweight was a significant independent predictor of MACE in patients with peripheral artery disease after endovascular treatment. However, BMI did not predict a prognosis of MALE.

Potential conflict of interest : None

Baseline Characteristics

	Underweight (BMI<18.5) N=202	Normal weight (BMI=18.5~25) N=1813	Overweight (BMI>25) N=895	P value
Age (yrs)	69.9±10.6	68.1±9.2	68.3±9.5	0.047
Male (%)	166 (82.2)	1544(85.2)	690 (77.1)	<0.001
BMI (kg/m2)	17.2±1.1	22.2±1.7	27.6±2.6	<0.001
Hypertension	119 (58.9)	1321 (72.9)	705 (78.8)	<0.001
DM	86 (42.6)	1027 (56.6)	582 (65.0)	<0.001
Dyslipidemia	63 (31.2)	725 (40.0)	358 (40.0)	0.048
CKD	387 (18.3)	373 (20.6)	167 (18.7)	0.472
ESRD	24 (11.9)	206 (11.4)	86 (9.6)	0.343
CAD	101 (50.0)	989 (54.6)	528 (59.0)	0.023
Smoking	72 (35.6)	594 (32.8)	251 (28.0)	0.019
Stroke	36 (17.8)	247 (13.6)	146 (16.3)	0.079
CLI	90 (44.6)	573 (31.6)	308 (34.4)	0.001
Aspirin	173 (86.9)	1503 (85.2)	788 (90.5)	0.001
Clopidogrel	166 (83.4)	1482 (84.0)	740 (85.0)	0.775
Cilostazol	79 (39.7)	601 (34.1)	340 (39.0)	0.023
Statin	126 (63.3)	1239 (70.2)	659 (75.7)	<0.001
ACEI or ARB	71 (35.7)	787 (44.6)	445 (51.1)	<0.001
Target limb				
Aortoiliac	85 (42.1)	851 (46.9)	360 (40.2)	0.003
Femoropopliteal	113 (55.9)	952 (52.5)	438 (48.9)	0.097
Infrapopliteal	68 (33.7)	477 (26.3)	323 (36.1)	<0.001
Procedural success	185 (91.6)	1651 (91.1)	814 (90.9)	0.960

MACE risk factor analysis using Cox proportional hazards analysis

Characteristics	Multivariate analysis	
	Mortality HR (95% CI)	P value
Age (Years)	1.050 (1.037-1.063)	<0.001
Male	1.021 (0.781-1.334)	0.881
DM	1.002 (0.794-1.264)	0.986
Smoker	0.799 (0.624-1.023)	0.075
HTN	1.034 (0.796-1.343)	0.801
CKD	3.325 (2.633-4.198)	<0.001
Underweight	1.800 (1.279-2.532)	0.001
CLI	1.377 (1.094-1.733)	0.006

MALE risk factor analysis using Cox proportional hazards analysis

Characteristics	Multivariate analysis	
	Mortality HR (95% CI)	P value
Age (Years)	0.994 (0.983-1.005)	0.277
Male	1.344 (1.043-1.730)	0.022
DM	1.033 (0.818-1.305)	0.785
Smoker	1.037 (0.822-1.308)	0.760
Hypertension	0.710 (0.565-0.892)	0.003
CKD	1.351 (1.043-1.752)	0.024
Underweight	1.413 (0.991-2.014)	0.056
CLI	1.501 (1.183-1.904)	0.001
PTA for fem to pop lesion	3.171 (2.501-4.020)	<0.001
PTA for BTK	1.559 (1.226-1.983)	<0.001