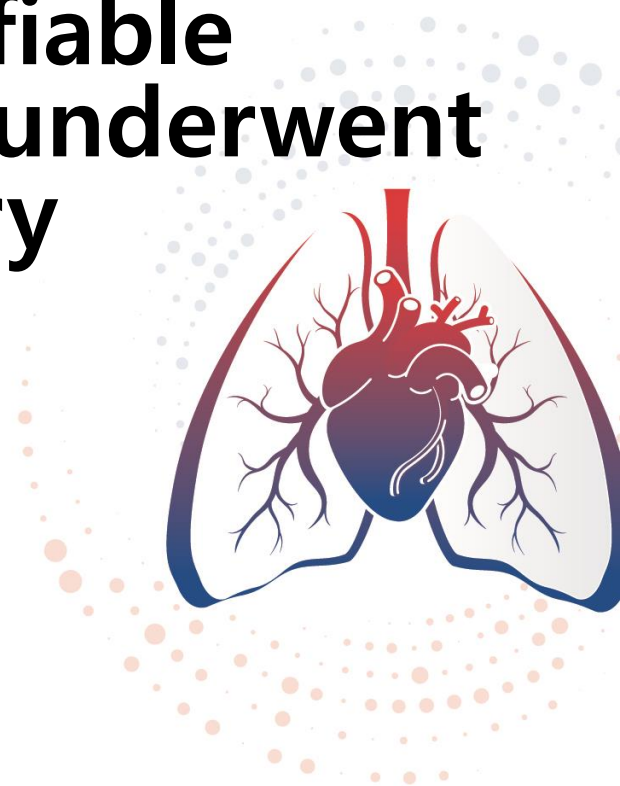


2023 대한심장혈관흉부외과학회

제55차 추계학술대회 & APELSO 2023

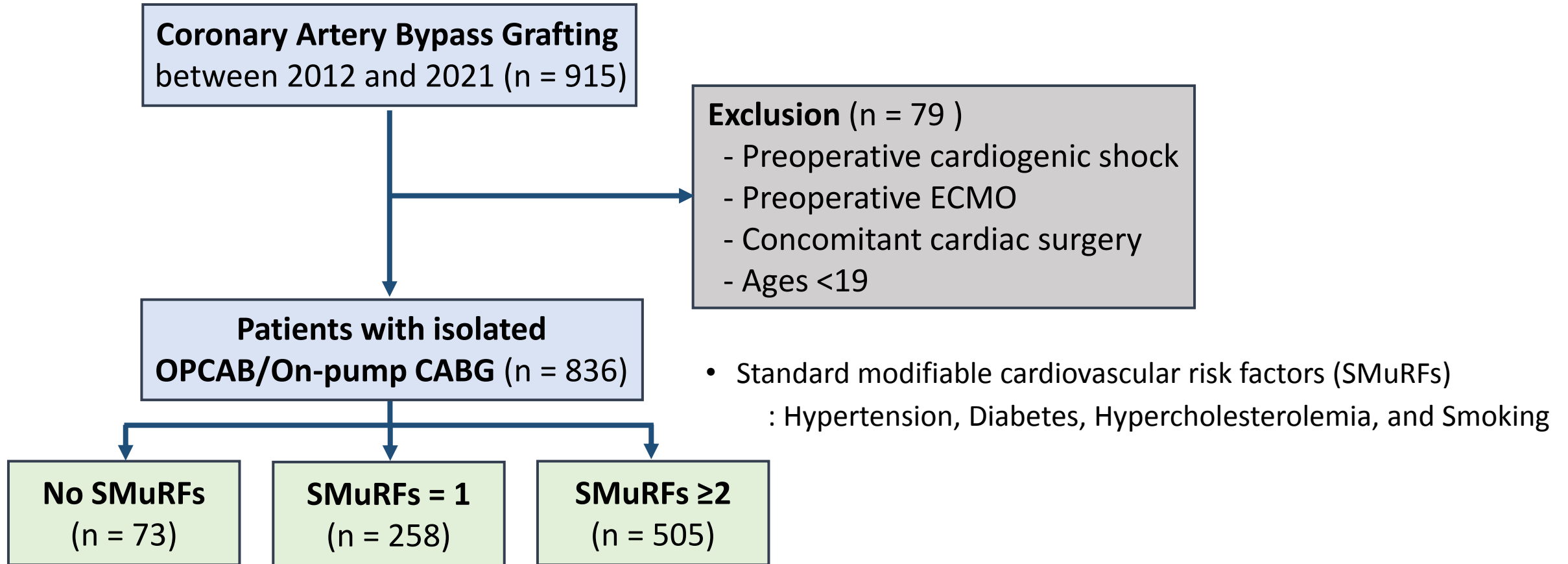
2023. 11. 02 (Thu) - 11. 04 (Sat), 그랜드 인터컨티넨탈 파르나스 서울

Prognostic role of Standard Modifiable Cardiovascular Risk Factors in patients underwent coronary artery bypass surgery



- Standard modifiable cardiovascular risk factors (SMuRFs; hypertension, diabetes, hypercholesterolemia, and smoking) are known to be key prognostic factors of cardiovascular disease, especially coronary artery disease.
- Previous studies show mixed results on mortality risk, with some reporting higher risk for SMuRF-less patients, but there's limited research on the prognostic role of SMuRFs in patients who undergo CABG.
- Therefore, this study aims to investigate the impact of SMuRFs on mortality and morbidity after CABG.

■ Study population (Mean follow-up duration: 4.7 ± 2.9 years)

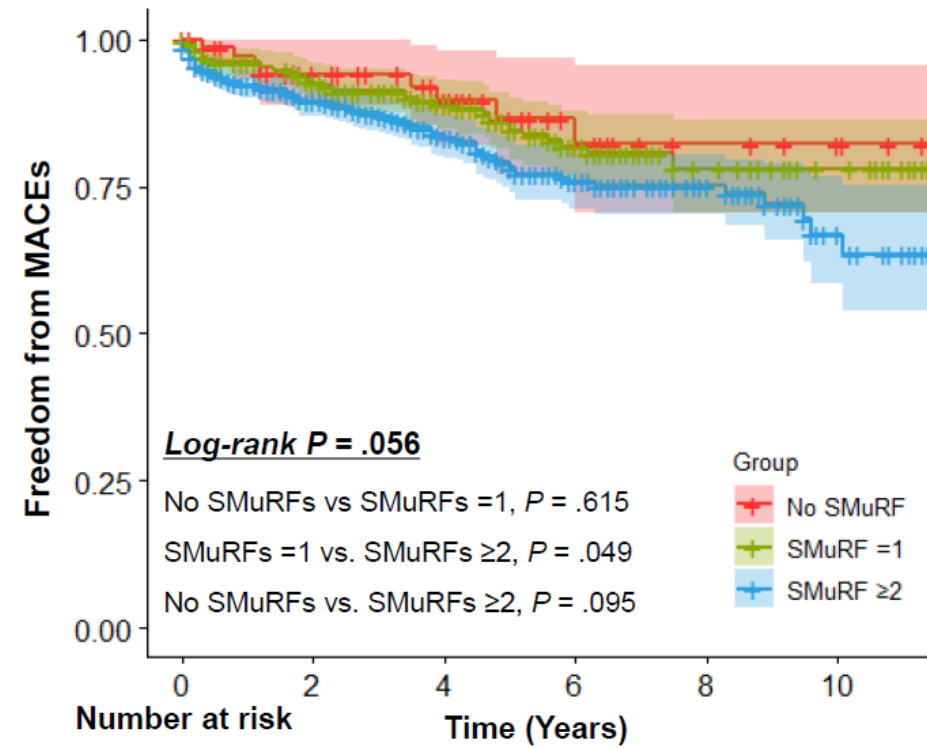
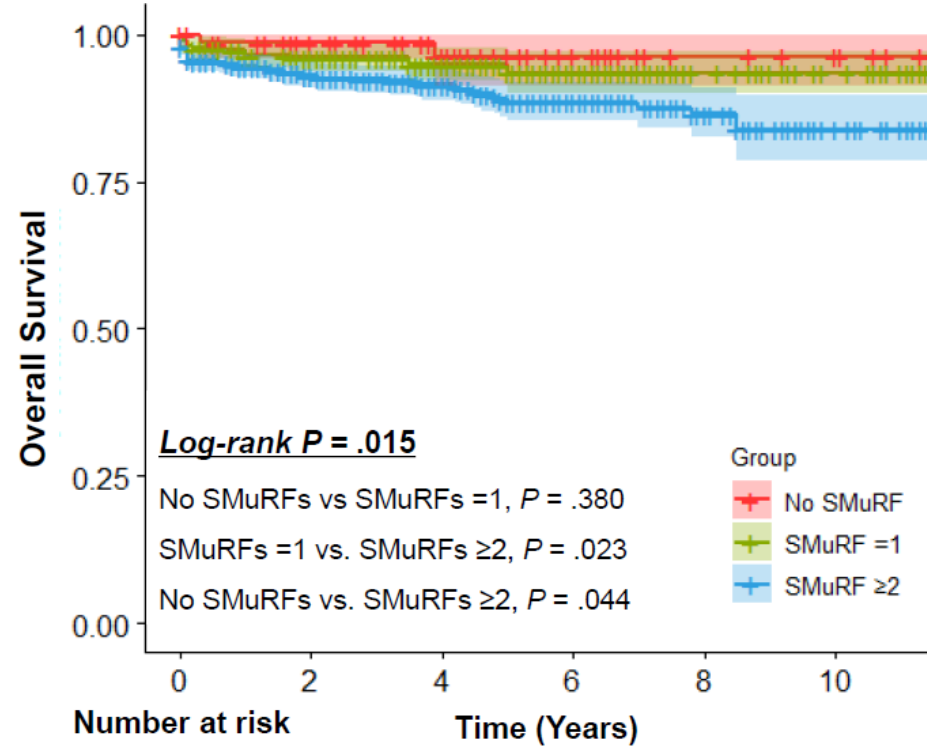


■ Endpoints of this study

- All-cause mortality
- Major adverse cardiovascular events (MACEs): cardiovascular mortality, recurrent myocardial infarction, heart failure hospitalization, coronary revascularization, and stroke

	SMuRFs =0 (n=73)	SMuRFs =1 (n=258)	SMuRFs ≥2 (n=505)	P value		SMuRFs =0 (n=73)	SMuRFs =1 (n=258)	SMuRFs ≥2 (n=505)	P value
Demographics					Left ventricular function				
Age, y	62.0±11.2	63.5±11.3	63.3±9.8	.585	LVEF ≥50%	41 (68.3)	126 (59.2)	267 (65.0)	.689
Female	15 (20.5)	60 (23.3)	89 (17.6)	.151	LVEF 41-49%	6 (10.0)	37 (17.4)	65 (15.8)	.565
Comorbidities					LVEF ≤40%	13 (21.7)	50 (23.5)	79 (19.2)	.321
Hypertension	0	121 (46.9)	451 (89.3)	<.001	3-vessel coronary disease	50 (68.5)	206 (79.8)	393 (77.8)	.331
Diabetes	0	55 (21.3)	374 (74.1)	<.001	Left main stenosis ≥50%	18 (24.7)	69 (26.7)	94 (18.6)	.024
Hypercholesterolemia	0	12 (4.7)	141 (27.9)	<.001	Operative Finding				
Smoking				<.001	Distal anastomosis	2.93±1.05	3.12±0.93	3.14±0.98	.233
Current smoker	0	70 (27.1)	253 (50.1)		Off-pump CABG	69 (94.5)	249 (96.5)	479 (94.9)	.683
Former smoker	8 (9.2)	32 (12.4)	47 (9.3)		Complete revascularization	66 (90.4)	240 (93.0)	466 (92.3)	.831
Never smoker	65 (89.0)	156 (60.5)	205 (40.6)		Operation time, min	285±65	289±62	293±67	.509
BMI	24.2±2.7	24.4±3.2	24.8±3.2	.070	In-hospital Complications				
BMI ≥25 kg/m ²	25 (39.7)	88 (38.8)	186 (42.7)	.393	Re-operation for bleeding	0	1 (0.4)	3 (0.6)	.473
Chronic renal disease	1 (1.4)	14 (5.4)	83 (16.4)	<.001	Stroke	0	2 (0.8)	7 (1.4)	.227
Peripheral arterial disease	3 (4.1)	8 (3.1)	21 (4.2)	.686	Prolonged ventilation (72>h)	5 (6.8)	17 (6.6)	48 (9.5)	.191
Stroke or TIA	5 (6.8)	21 (8.1)	75 (14.9)	.004	Newly developed Dialysis	1 (1.4)	7 (2.7)	18 (3.6)	.276
Previous PCI	14 (19.2)	28 (10.9)	96 (19.0)	.127	Arrhythmias	8 (11.0)	26 (10.1)	44 (8.7)	.432

■ Kaplan-Meier curve for overall survival & MACEs



■ Multivariable Cox analysis

- SMuRFs ≥ 2 , age, CKD were independent risk factors for poor overall survival
- age, CKD, previous PCI were important risk factors for MACEs
- However, SMuRFs ≥ 2 was not an independent risk factor for MACEs

- Patients who underwent CABG surgery and had two or more risk factors among SMuRFs showed a higher postoperative all-cause mortality rate.
- However, according to adjusted Cox analysis, patients with two or more SMuRFs did not elevate the risk of MACEs.
- Therefore, effective control of SMuRFs is crucial for reducing all-cause mortality in patients who undergo CABG.