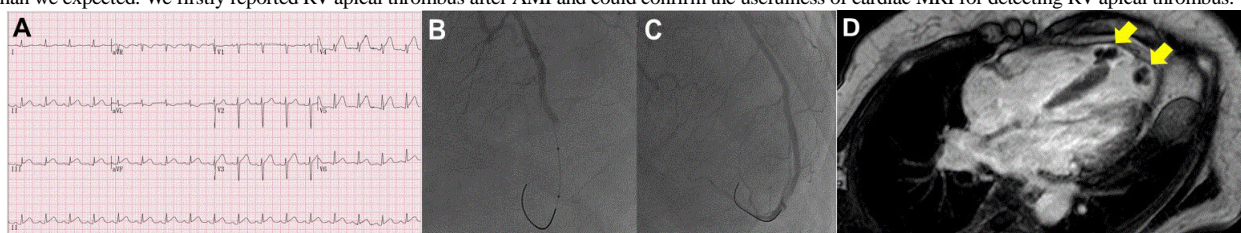


## Simultaneous left and right ventricular apical thrombi after acute myocardial infarction

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**Background:** Left ventricular (LV) thrombus is occasionally developed especially in apex after acute myocardial infarction (AMI), but right ventricular (RV) thrombus has not been reported. This case is simultaneous LV and RV apical thrombi confirmed by cardiac magnetic resonance imaging (MRI) after AMI due to distal left anterior descending artery (dLAD) occlusion. **Case Report:** A 54-year-old female was brought to the emergency room with ongoing chest pain. She had hypertension but was not taking medication. Soon after admission, ventricular fibrillation was occurred and 2 times of direct current defibrillation was done. The initial electrocardiogram after resuscitation showed ST elevation at, V3-5, II, III, and aVF (Fig. A). AMI was diagnosed and an emergent coronary angiography (CAG) was performed. An initial CAG revealed that the dLAD was totally occluded (Fig. B). An Xience Alpine stent (2.5×18 mm) was successfully implanted at the dLAD without residual stenosis and dissection (Fig. C). The echocardiography was performed at hospital day 2 and showed moderate to severe LV systolic dysfunction and akinesia at apex. The cardiac MRI was performed at hospital day 5 and myocardial fibrosis with thinning was found on the LV and RV apex. Interestingly, the LV and RV apical thrombi were simultaneously observed (Fig. D). However, LV thrombi was well observed but RV thrombi was not clearly observed in echocardiography on the same day. Anticoagulation was started and the patient was discharged from the hospital without any problem. **Conclusion:** Although the culprit lesion was the dLAD, this patient experienced severe complications such as cardiac arrest and thrombi because the dLAD wrapped around the LV and RV apex and supplied to inferior wall. This resulted in larger infarct area more than we expected. We firstly reported RV apical thrombus after AMI and could confirm the usefulness of cardiac MRI for detecting RV apical thrombus.



## Prediction of atherosclerotic cardiovascular disease with individualized life style for Korean.

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**Background/Aims:** The life style including physical activity or alcohol consumption has been known as important risk factor for atherosclerotic cardiovascular disease (ASCVD). However, it is unclear whether these factors would have the value of prediction for ASCVD in Korean population. **Methods:** We developed and validated the baseline prediction model of ASCVD with factors including age, gender, blood pressure and anti-hypertensive medication, diabetes and body mass index using data of the Korean National health check-up cohort. We calculated continuous net reclassification index (cNRI) of exercise per week or alcohol consumption according to gender in order to evaluate the value of prediction of these factors. The study population is 243,506 males and 203,277 females who took the National health check-ups from 2002 to 2003 and without history of previous ASCVD. The definition of hard ASCVD was the composite of fatal or non-fatal myocardial infarction and all type of stroke following after the health check-ups. **Results:** The life style factors including body mass index, smoking, the number of exercise per week and the amount of alcohol consumption per week were significant predictors of the 10-year ASCVD risk. The number of exercise per week had additional value of prediction for ASCVD in both genders. (cNRI; 0.107,  $p=0.020$  in male, 0.113,  $p=0.017$  in female) However, alcohol consumption per week had additional value of prediction in male population, but not in female population. (cNRI; 0.135,  $p=0.013$  in male, 0.065,  $p=0.465$  in female) **Conclusions:** The life style including alcohol consumption or exercise were significant predictors of ASCVD in Korean population. However, the value of prediction was different according to gender.

Table 1. the 10-year non-laboratory prediction model of ASCVD in Korean population.

	Male				Female			
	Beta	SE	HR	P	Beta	SE	HR	P
Age	0.07506	0.00119	1.078	<0.001	0.0833447	0.0014880	1.087	<0.001
SBP: 120~139 mmHg	0.2239	0.03182	1.251	<0.001	0.2257204	0.0374125	1.253	<0.001
SBP: 140~159 mmHg	0.4330	0.03449	1.542	<0.001	0.3639237	0.0414635	1.439	<0.001
SBP: 160~ mmHg	0.6713	0.04241	1.957	<0.001	0.5514701	0.0508778	1.736	<0.001
Anti-hypertensive user	0.2325	0.02846	1.262	<0.001	0.3121178	0.0305428	1.366	<0.001
DM	0.5790	0.03396	1.784	<0.001	0.6241892	0.0412837	1.867	<0.001
10/BMI	-1.808	0.4242	0.1640	<0.001	-1.1038536	0.4281873	0.332	0.010
Log(BMI/10)*10/BMI	-1.14	1.986	0.00001459	<0.001	-8.6661156	2.1913521	0.0001723	<0.001
Current smoker	0.4335	0.02263	1.543	<0.001	0.5533200	0.0577688	1.7390170	<0.001
Exercise: none	0.1718	0.02235	1.187	<0.001	0.1716138	0.0357629	1.1872193	<0.001
Exercise: everyday	-	-	-	-	0.1393770	0.0571793	1.1495574	0.014
Alcohol consumption: none	0.1162	0.02427	1.123	<0.001	-	-	-	-
Alcohol consumption: high risk	0.1373	0.03470	1.147	<0.001	-	-	-	-
10-year Baseline survival	0.9468336				0.9647013			
C index: development set	0.760				0.792			
C index: validation set	0.752				0.788			