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manuscript, the phrase "during the cool-down period after the cessation of peak exercise" means during the length of early recovery time after peak exercise. We retrospectively enrolled subjects in the sitting position during the recovery phase who had exercise testing abruptly terminated. The values of ≤12 beats/min in the first minute after exercise for protocols that use a post-exercise cool-down and of ≤18 beats/min in the first minute postexercise for protocols that stop exercise abruptly have prognostic value, especially in predicting mortality (2, 3). However, these two values were generally not accepted for determining the presence of coronary artery disease (CAD). Georgoulias et al. (4) used an HRR1 of ≤21 beats/min after abruptly stopping exercise for determining the presence CAD. Hence, an HRR1 value of ≤18 beats/min might arguably determine the presence of CAD. After we used ROC analysis in Metlab software (Version 12.5.0, Ostend, Belgium) to determine the best HRR1 value, we obtained a value of ≤21/beats/min as the best specificity and sensitivity point for predicting CAD. The main aim of the study was to investigate an HRR1 value of ≤21 beats/min for determining the presence of CAD but not heart rate reserve. We mentioned heart rate reserve as an exercise testing parameter in the manuscript. We calculated heart rate reserve as 220 - age in years - resting heart rate in beats/min. If we had defined heart rate reserve in the methods, it would have made a better manuscript.

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References

- Akyüz A, Alpsoy S, Akkoyun DC, Değirmenci H, Güler N. Heart rate recovery may predict the presence of coronary artery disease. Anadolu Kardiyol Derg 2014; 14: 351-6. [CrossRef]
- Cole CR, Blackstone EH, Pashkow FJ, Snader CE, Lauer MS. Heart rate recovery immediately after exercise as a predictor of mortality. N Engl J Med 1999; 341: 1351-7. [CrossRef]
- Watanabe J, Thamilarasan M, Blackstone E, Thomas J, Lauer MS. Heart rate recovery immediately after treadmill exercise and left ventricular systolic dysfunction as predictors of mortality: the case of stress echocardiography. Circulation 2001; 104: 1911-6.
- Georgoulias P, Orfanakis A, Demakopoulos N, Xaplanteris P, Mortzos G, Vardas P, et al. Abnormal heart rate recovery immediately after treadmill testing: correlation with clinical, exercise testing, and myocardial perfusion parameters. J Nucl Cardiol 2003; 10: 498-505. [CrossRef]

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The first experiences with the lotus valve system in Turkey as an alternative valve system in TAVI

To the Editor,

Transcatheter aortic valve implantation (TAVI) is an alternative therapy to surgical aortic valve replacement (AVR) in inoperable patients with severe aortic stenosis (AS). Currently, new valve systems are being developed, and we experienced TAVI with the Boston Scientific Lotus Valve

System (Marlborough, Massachusetts, USA) with two patients for the first cases in Asia-Pacific countries and Turkey. The first patient was a 77-yearold woman with severe AS with an echocardiographic aortic valve area of 0.8 cm² and a mean aortic pressure gradient of 52 mm Hg, and her left ventricular function (LVEF) was 35%. Her logistic EuroSCORE was 38%, and she had New York Heart Association (NYHA) functional class III dyspnea. The other patient was a 82-year-old woman with severe AS; in her echocardiographic examination, the aortic valve area was 0.6 cm², and the mean aortic pressure gradient was 62 mm Hg, with an LVEF of 52%. Her logistic EuroSCORE was 29%, and she had NYHA class III dyspnea. The Lotus valve system has some advantages, such as it does not require rapid pacing during valve system implantation and balloon pre-dilatation, and it has a specific pre-shaped guidewire that has two types varying the length and curve, designed according to the size of the left ventricular cavity diameter. This valve system supports an ability to change positions while opening the valve system at the aortic valve level. Likely, if the chosen aortic valve size and aortic roof size do not match, the valve system could be taken back through the sheath. The other important feature of the Lotus valve is success in the prevention of paravalvular leak (PVL), which is related with increased mortality rate (1). In the REPRISE I trial, in which the safety and efficacy of the Lotus valve were studied, one patient had stroke, PVL was seen in 3 of 11 patients, and permanent pacemaker implantation was required due to complete heart block, left bundle branch block, or atrial fibrillation with slow ventricular rate in 4 of 11 patients, while the requirement of permanent pacemaker implantation varies between 3% and 40% with other valve systems (1, 2).

In our patients, the follow-up echocardiography showed a well-functioning prosthesis, with a mean gradient of 7 mm Hg and 9 mm Hg, respectively. There was no paravalvular leak or pacemaker implantation required in either patient. The patients were clinically stable at 30 days of follow-up after the procedure. In summary, the ability to change valve position to obtain optimal implantation placement and the decrease in PVL rate are the most important reasons for using the Lotus valve system.

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References

- Tamburino C, Capodanno D, Ramondo A, Petronio AS, Ettori F, Santoro G, et al. Incidence and predictors of early and late mortality after transcatheter aortic valve implantation in 663 patients with severe aortic stenosis. Circulation 2011; 123: 299-308. [CrossRef]
- Meredith IT, Worthley SG, Withbourn RJ, Antonis P, Montarello JK, Newcomb AE, et al. Transfemoral aortic valve replacement with the repositionable Lotus Valve System in high surgical risk patients: the REPRISE I study. EuroIntervention 2014; 9: 1264-70. [CrossRef]

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