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Editorial

A Second Paradigm Shift in the Treatment of Stable Angina Pectoris

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Since the invention of percutaneous transluminal coronary angioplasty for angina pectoris by Grüentzig in 1977, less invasive percutaneous coronary intervention (PCI) has become an advantage over coronary artery bypass grafting (CABG). It quickly spread around the world (first paradigm shift). From the initial balloon dilatation to the proliferation of new devices, complex lesions (calcified, diffuse and chronic total occlusive lesions, etc.) were also targeted. The introduction of antithrombotic therapy, endovascular imaging and quantitative coronary angiography in core laboratories to objectively evaluate the effects of the devices have all contributed to the evolution of PCI during this period. More recently, the duration of dual antiplatelet therapy has been shortened and convenience has increased.

On the other hand, PCI and optimal medical therapy (OMT) for stable angina pectoris have been reported to have the same effect on long-term prognosis, and the importance of OMT and comprehensive cardiac rehabilitation has been reviewed. The ISCHEMIA (International Study of Comparative Health Effectiveness With Medical and Invasive Approaches) trial showed that in patients with stable coronary artery disease with moderate to severe ischaemia (no left main disease), early invasive strategies (catheterisation within one month followed by PCI or CABG) improved the quality of life of symptomatic patients but did not improve clinical outcomes compared with conservative treatment strategies (continued medical therapy) (second paradigm shift) [1]. In Japan, PCI for stable angina pectoris is limited to cases with proven physiological ischaemia, and the number of PCI cases is decreasing. After a second paradigm shift, OMT is again being considered.

As part of OMT, high-intensity interval training (HIIT) has been shown to outperform traditional moderate-intensity aerobic therapy (MICT) [2,3]. Maximal oxygen consumption, a predictor of long-term prognosis, was significantly increased with HIIT compared to MICT in cardiovascular disease, and a coronary plaque reduction effect was also demonstrated [4]. The essence of HIIT is the addition of vigorous exercise to the training session. In the last 2 - 3 years, short bursts of vigorous sprinting have also been shown to improve prognosis in the general population [5]. To improve long-term clinical outcomes in stable angina pectoris, lifestyle counselling by general practitioners/cardiologists is becoming increasingly important.

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