





an Open Access Journal by MDPI

Coronary In-Stent Restenosis – Current Perspectives

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Deadline for manuscript submissions:

30 June 2024

Message from the Guest Editors

Percutaneous coronary intervention (PCI), which allows the removal of coronary obstruction and restoration of supply affected myocardium, has brought major to the improvements in the treatment of coronary artery disease. Coronary stents allowed management periprocedural complications and led to occurrence of restenosis following the plane balloon angioplasty due to the restricted elastic recoil and constrictive remodelling. The development of neointimal hyperplasia is, however, a novel complication associated with stent implantation possibly causing, recurrence of the narrowing of the vessel lumen, the so-called in-stent restenosis (ISR). Although the use of drug-eluting stents (DES) contributed to their lower occurrence, in-stent restenosis remains one of the essential limitations of coronary interventions. In addition, the restenosis in drugeluting stent (DES-ISR), is a complex process involving not only the intrinsic reaction of the vessel wall to the metallic stent platform, but also the biocompatibility of the polymer coating or insufficient effect of the antiproliferative drug, making the treatment of these remaining DES-ISR even more challenging.



