Coronary angioplasty was introduced by Grüntzig in 1977 and revolutionized the treatment of coronary artery disease.[1] However, abrupt vessel occlusion resulting from local dissections after balloon dilatation and negative remodeling due to elastic recoil prompted the development of prosthetic devices for the maintenance of luminal integrity: coronary artery stents. The first coronary stent was implanted in 1986.[2] Subsequently coronary stents were shown to improve procedure safety and reproducibility in two randomized trials, which established elective stenting as standard treatment compared with balloon angioplasty.[3,4] Nevertheless, a neointimal hyperproliferative healing response leading to restenosis and subsequent need for repeat revascularization emerged as a novel limitation observed in up to 30% of patients after coronary stenting.[5]

Drug-eluting stents were therefore proposed in the late 1990s to address restenosis by providing local, controlled release of antiproliferative agents. A large number of randomized trials consistently reported improved clinical outcomes with drug-eluting stents as compared to bare metal stents, primarily due to substantial reduction in the risk of repeat revascularization.[6,7] In 2006, several reports called into question the long-term safety of drug-eluting stents – specifically with respect to the risk of stent thrombosis occurring after discontinuation of dual antiplatelet therapy.[8-11] It was noted, however, that this small hazard did not translate into a higher risk of death and myocardial infarction.[6,10,12-14] During the last two decades, a new generation of drug-eluting stents have been developed in order to address the limitations of earlier devices,.

The technological progress of coronary devices had a significant impact on clinical outcomes in patients with coronary artery disease, in terms of both safety and efficacy, allowing percutaneous coronary revascularization to become one of the most frequently performed procedures in medicine worldwide.

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