Lesions in small coronary vessels comprise a challenging disease subset in contemporary interventional practice. Due to the limitations of mechanical methods for preventing restenosis in small vessels, such lesions have been considered the Achilles' heel of bare metal stenting, with little marginal antirestenotic efficacy in comparison with balloon angioplasty. In contrast, modalities employing biological or pharmaceutical methods for restenosis prevention - in particular drug-eluting stents (DES) - have demonstrated greatest antirestenotic advantage in vessels with reference diameter under 2.8 mm. Moreover, lesions in small vessels served as an important stress test in uncovering efficacy differences between comparator DES platforms.

Drug-coated balloon therapy has shown encouraging results in certain subgroups - most notably in restenosis within bare metal stents. However, what limited data exists to date does not suggest a clear role for this modality in lesions in small coronary vessels. On the basis of sound scientific principle and accumulated trial data, DES therapy represents the treatment of choice for this condition, simultaneously combining high acute gain with low late loss. While concerns related to late adverse events after DES implantation focus attention on the need for interventional modalities delivering high antirestenotic efficacy with a minimum of vascular wall toxicity, it may well transpire that in
this disease subset novel stent platforms - such as fully bioabsorbable DES - represent a more promising way forward than drug-coated balloons.