

The luminal gain of chronically shrunk coronary vessels after stenting at proximal severely stenotic lesion.

Background: Shrunk coronary arterial segments distal to the severely stenotic lesions are common as a result of decreased coronary flow. After intervention at proximal lesions, the size of distal vessels may enlarge. We aim to compare the size of chronically degenerated coronary vessels before and after coronary interventions by OCT.

Method: The definition of severe stenosis is more than 75% narrowing in vessel diameter. 6 cases performed coronary intervention with stenting at proximal severely stenotic lesions. OCT imaging of the distal reference segments was also performed before and after intervention.

Result: 6 cases performed coronary intervention with stenting and OCT imaging. The baseline lumen diameter at distal shrunk vessel was 1.8 ± 0.4 mm. After the intervention, the lumen diameter increased to 2.2 ± 0.4 mm, with 22.1% diameter gain.

Conclusion: During the index procedure, operators may choose a stent with a size 25% larger than the original distal reference segment to help preserve native minimal lumen area.