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STUDIUM PRZYPADKU / *CLINICAL VIGNETTE*

First European implantation of the new, thin-strut, sirolimus-eluting bioresorbable scaffold

Pierwsze europejskie wszczepienie stentu bioresorbowalnego nowej generacji o małej średnicy przęsła

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A 46-year-old man with coronary artery disease, hypertension, type 2 diabetes, hyperlipidaemia, and obesity was admitted for an elective percutaneous angioplasty of the mid segment of the first marginal branch (Fig. 1A). The haemodynamic significance of the lesion was confirmed with fractional flow reserve assessment (FFF = 0.74). Percutaneous coronary intervention was performed with the new, thin-strut, sirolimus-eluting bioresorbable scaffold (BRS) Fantom™ (Reva, US). The structure of the device is made of desaminotyrosine-derived polycarbonate with a strut thickness of 125 μm. The base structure is covered with a thin layer of desaminotyrosine-derived polycarbonate *biodegradable polymer* with integrated sirolimus at a total dose of 115 μg for the 3.0 × 18 mm scaffold. More than 80% of the total sirolimus load is eluted within the first 90 days. After predilatation with a 3.0 × 15 mm balloon (18 atm), a Fantom BRS 3.0 × 18 mm was implanted at a pressure of 18 atm. A high-pressure post-dilatation with a non-compliant balloon 3.0 × 12 mm was performed (22 atm) with good angiographic result (Fig. 1B, C). The optical coherence tomography imaging confirmed a very good device expansion and strut apposition along the entire scaffold length (Fig. 1D, E). The patient was discharged on the next day and scheduled for clinical and angiographic follow-up. This is the first report on the implantation of this new thin-strut BRS in humans.

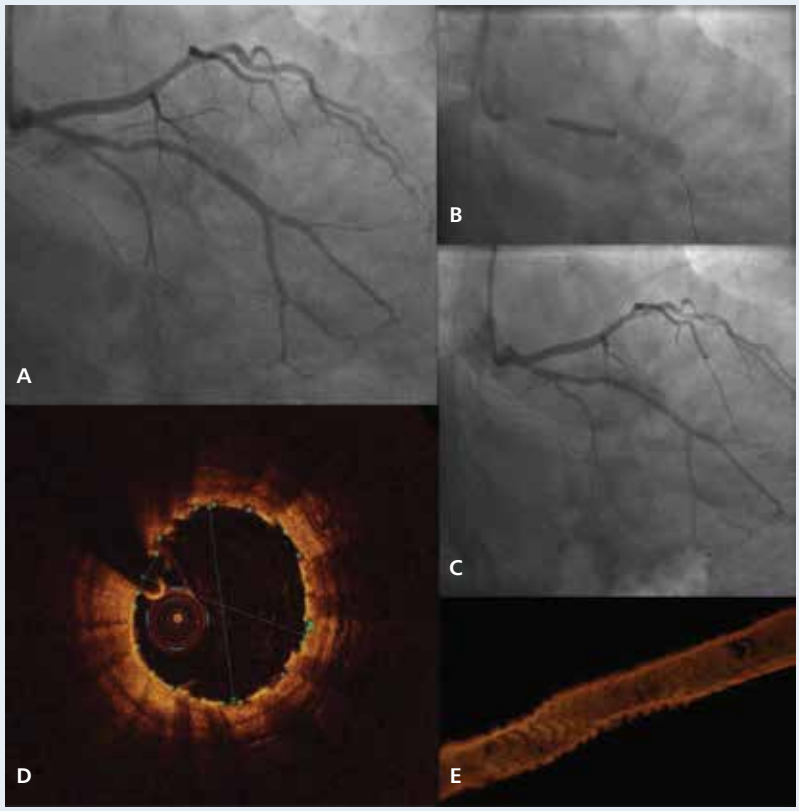

Figure 1. **A**. A coronary angiogram showing a significant lesion in the proximal segment of the first marginal branch; **B**. Implantation of bioresorbable scaffold 3.0 × 18 mm (Fantom TM, REVA, US); **C**. A coronary angiogram showing good angiographic effect after scaffold implantation; **D**. A vertical cross sectional image from optical coherent tomography (OCT) confirming good struts apposition; **E**. A longitudinal vessel cross section after scaffold implantation visualized in the OCT

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Conflict of interest: *Dr Alexander Abizaid serves in Reva Advisory Board with minor financial compensation.*