Supporting Information

Title: Oversized Composite Braided Biodegradable Stents with Post-dilatation for Pediatric Applications: Mid-term Results of a Porcine Study

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The number of figures: 3

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Table S1. Definition of injury, inflammation and degradation scores

	Scores	Definition
Inflammation scores[1]	0	No inflammatory cells surrounding the strut
	1	Light, non-circumferential lymphohistiocytic infiltrate surrounding the strut
	2	Localized, non-circumferential, moderate-to-dense cellular aggregate surrounding the strut
	3	Circumferential dense lymphohistiocytic cell infiltration of the strut
Injury scores[2]	0	Internal elastic lamina (IEL) intact
	1	An IEL laceration and typical medial compression without a laceration
	2	Visible IEL and medial lacerations and intact external elastic lamina (EEL) compression
	3	An EEL laceration
Polymer Degradation[3]	0	Intact polymer (not stained with dye)
	1	Intact polymer (stained with dye)
	2	Minimal fragmentation with immune cells entering the polymer
	3	Excessive fragmentation (throughout the polymer scaffold)
	4	Decrease in polymer area
	5	Complete degradation of the polymer

References:

1. K. Ran, M. K. Hong, F. O. Tio, O. Bramwell, H. Wu and M. B. Leon, Journal of the American College of Cardiology, 1998, 31, 224.
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3. E. L. Hedberg, H. C. Kroese-Deutman, C. K. Shih, R. S. Crowther, D. H. Carney, A. G. Mikos and J. A. Jansen, Biomaterials, 2005, 26, 4616-4623.

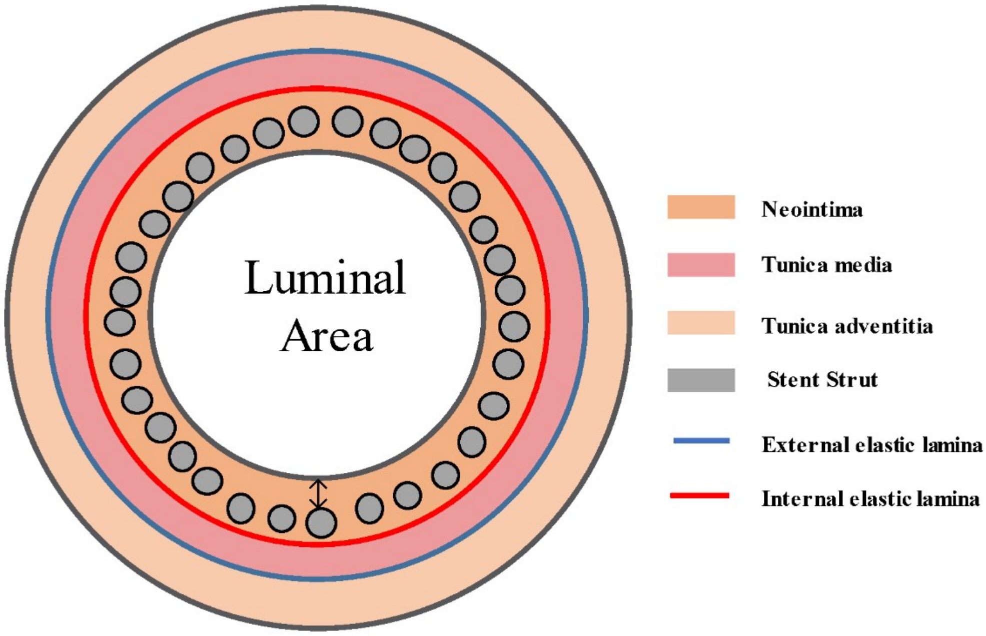

Figure S1. Schematic diagram of stented vessel. The internal elastic lamina area (IELA) and the luminal area (LA) were determined by tracing with computer assistant. Neointimal area (NA) was calculated as: (IELA- LA). The percentage of area stenosis (AS%) was calculated as: AS% = NA / IELA × 100%. The double-headed arrow indicates the measurement of neointimal thickness (NT) above the stent struts, which is averaged in that cross section.

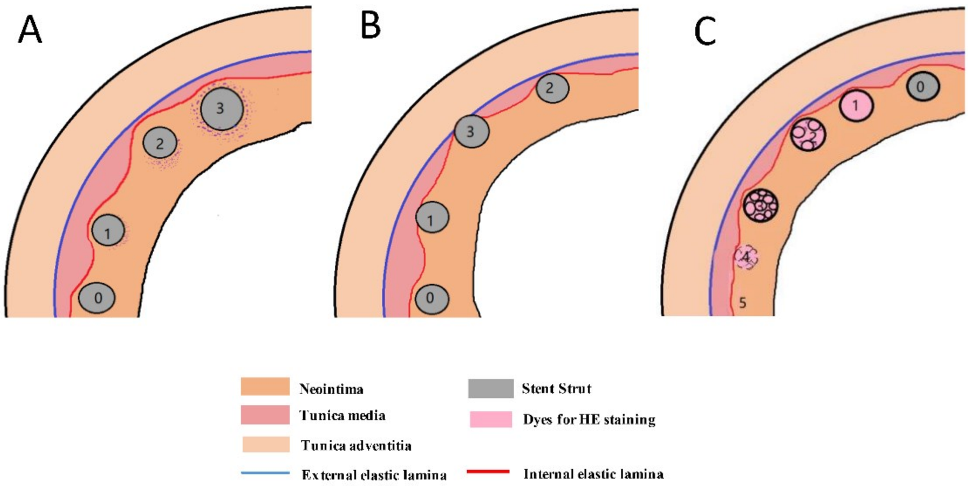

Figure S2. Schematic diagrams show how score measurements are obtained. (A) Inflammation score; (B) Injury score; (C) Degradation score. Scores for each wire are located inside wire lumen, following by the definition of injury, inflammation and degradation scores. The mean score is calculated as the sum of the scores of the stent struts divided by the total number of struts.

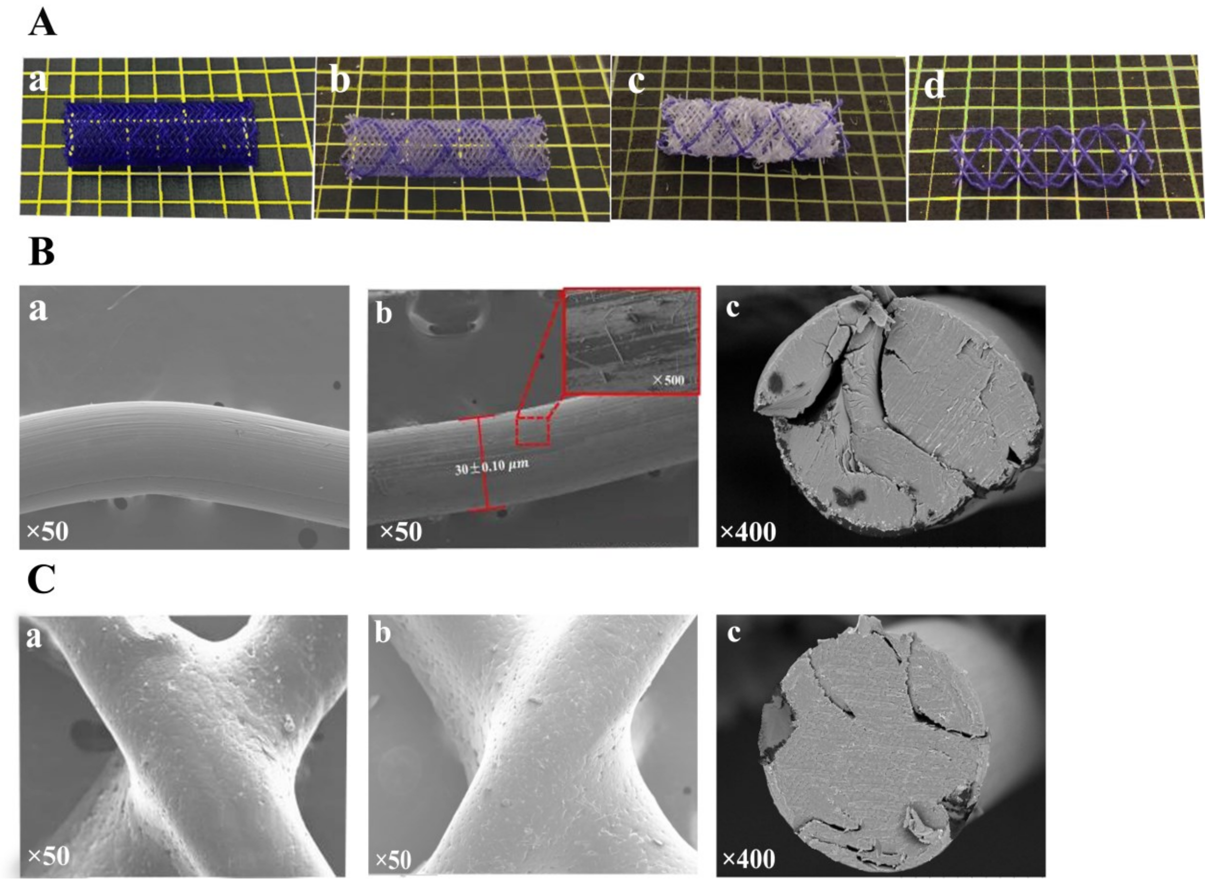

Figure S3. **Accelerated *in vitro* static degradation evaluations.** (A) CBBS appearance at the indicated time point, a) before degradation, b) 20 days degradation, c) 40 days degradation, d) 50 days degradation. (B) SEM images of PPDO monofilaments during degradation, a) before degradation b) 20 days degradation c) cross-section surface at day 40 of degradation. (C) SEM images of PCL/PPDO composite filaments at interlace points during degradation, a) before degradation b) 40 days degradation c) cross-section surface of a composite filament at day 40 of degradation.

*Figure S2 B(a)(b) and C(a)(b) were adapted with permission from ref [Materials Letters 2019, 250, 12-15. Zhao, F.; Wang, F.; King, M. W.; Wang, L., Effect of dynamic and static loading during *in vitro* degradation of a braided composite bioresorbable cardiovascular stent. **Figure 2A,B,F,G**.]. Copyright [2019] [Copyright Holder: Elsevier]