**Supplement S1. Estimation of stent sizes from angiogram**

To estimate the stent size implemented, the minimum lateral tunnel diameter and diameter at a reference location (directly downstream of the hepatic venous confluence, or the point with maximum lateral tunnel diameter, depending on the angiograms available) were measured both before and after stent implantation. Shape factors (SF) were estimated from both angiograms to estimate the relative minimum (cross-sectional) area of the lateral tunnel:

Where i = before or after stent implantation, A1 and L1 are the minimum diameters of the lateral tunnel, and A2 and L2 are the lateral tunnel diameters at the reference location (Figure 1); “A” denotes diameter measured from the anterior-posterior view angiogram and “L” denotes diameter measured from the lateral view angiogram.

The dilation ratio (stent cross-sectional area / stenosis cross-sectional area) from the angiogram was calculated as:

Stent length was also estimated from the angiograms by scaling the lateral tunnel diameters. Virtual stents, created as perfect cylinders with diameter based on the dilation ratio, were placed according to the orientation in the angiograms and merged with the reconstructed 3-dimensional stenotic geometry in Geomagic Studio (Geomagic Inc., NC, USA).