

**Sirolimus coated stent in the prevention of restenosis:
long-term clinical, IVUS and QCA follow-up**

We have previously reported a virtual absence of neointimal hyperplasia 4 months after implantation of sirolimus-eluting stents. The aim of the present investigation was to determine whether these results are sustained over a period of 1 year or more.

Thirty patients with de novo coronary disease were successfully treated with the implantation of a single sirolimus-eluting Bx VELOCITY™ stent in São Paulo [n=30, 15 fast release (Group I - GI) and 15 slow release (GII)]. Angiographic and volumetric intravascular ultrasound (IVUS) follow-up were obtained at 4 and 12 months (GI and GII). In-stent minimal lumen diameter (MLD) and %diameter stenosis (DS) remained essentially unchanged in both groups (at 12 months GI and GII). Follow-up in-lesion MLD was 2.32-mm (GI) and 2.48-mm (GII). No patient approached the $\geq 50\%$ DS at 1-year by angiography or IVUS assessment, and no edge restenosis was observed. Neointimal hyperplasia, as detected by IVUS, was virtually absent at 4 months and at 12 months (GI = $2\pm 5\%$ and GII = $2\pm 3\%$). All these 30 patients were followed for a mean of 22 months. Myocardial infarction occurred in 1 patient from fast release group at 14 months due to the natural progression of CAD not related to the target lesion (MACE 2,3%).

This study demonstrates a sustained suppression of neointimal proliferation by sirolimus-eluting Bx VELOCITY™ stents 1 year after implantation.