Treatment of distal anastomosis defects during femoro-popliteal below-the-knee bypass with drug eluting stents

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Technically anastomotic defects are the most common cause of early occlusion of femoro-popliteal below-the-knee bypass, and their correction has traditionally been performed through standard surgical techniques (i.e. redo anastomosis, redo bypass, etc.) with increasing operative time and risk of limb loss.

From January 2005, we started to treat intimal flaps and dissection of distal anastomosis of femoro-popliteal below-the-knee bypass with drug eluting stenting. We routinely perform intraoperative angiography to assess the result. The angiogram is obtained through direct puncture of the common femoral artery with a 21 G needle.

During the time period considered, 164 femoro-popliteal bypass were performed at our institution and a total of 5 (3.01%) patients were found to have received drug eluting stent for anastomotic defects. Immediate technical success was obtained in all patients. At a mean follow-up of 18 months (range, 4-26 months), we did not observe any symptoms related to the treated anastomosis, nor hemodynamic in-stent restenosis.

In conclusion, our study, even if in a small group of patients, demonstrates that drug eluting stenting for distal anastomosis defects is safe and technically feasible, and represents a valid and quick alternative to standard surgical revision. Further studies with large cohort of patients and long-term results are advocated.