Leopard-crawl technique for a severely calcified lesion

<background> PCI for calcified lesions is sometimes troublesome because of difficult stent delivery and stent underexpansion. For calcified lesions, we usually use Rotablator or scoring balloons, but Rotablator has the risk of perforation at bend lesions, and the crossability of usual scoring balloons are not good. Lacrosse NSE is a kind of a scoring balloon and has three element on the outside of the balloon. If the balloon does not cross the lesion fully, the elements in front of the balloon dilate the stenotic lesion at the balloon dilatation. Therefore the balloon can advance distally step by step. This procedure is called leopard-crawl technique. We report the case treated with this technique.

<case> A 73-year-old male had anteroseptal STEMI and was performed primary PCI for the left anterior descending artery. Angiography revealed also a significant stenotic lesion with calcification at the left circumflex artery (LCX). PCI was performed for LCX after a few weeks. IVUS revealed severely calcified stenotic lesion. We use Lacrosse NSE for predilatation. The balloon did not cross the lesion, so we dilated the balloon first at the orifice of the stenotic lesion. After the procedure, the balloon advanced distally. We repeated inflation and deflation and advanced the balloon. Finally the balloon crossed fully the stenotic lesion. After predilatation, we put a stent at LCX. Final angiography revealed optimal result. We can advance the balloon distally with this procedure, and can dilate the severe calcified stenotic lesion. Leopard-crawl technique is very useful for severely calcified lesions.