Use of the FLEX Scoring Catheter as a New Arteriovenous Access Management Device.

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Purpose: The FLEX Scoring Catheter® (VentureMed Group, Toledo, Ohio) was evaluated in the treatment of AV access stenosis.

Materials and Methods: The Flex Scoring Catheter is a 6 French, 0.18 guidewire compatible device. Recently a 40 cm useable catheter length has been commercialized. The FLEX has 3 atherotomes that modify AV stenosis during pull-back with Dynamic Scoring® technology. FLEX can be rotationally controlled to create multiple linear scores. Voluntarily provided case reports (18 operators in 10 hospital systems) from 59 patients treated for AV access complications were analyzed. The patients treated had mean age of 63 (28 Female, 31 Male). The lesions were treated with the FLEX Scoring Catheter followed by the administration of a drug coated balloon (DCB) or plain old balloon angioplasty (POBA).

Conclusion: The growing occurrence of renal disease, and subsequent hemodialysis illustrates the need for advancements in arteriovenous access management. FLEX prior to angioplasty allows for significant luminal gain. Lesion effacement with angioplasty after FLEX occurs at sub-nominal pressures. Early experience with the FLEX Scoring catheter suggest it may offer benefits in the management of AV access, especially in the era of DCB. Further studies are warranted.

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Results		
Number of Cases:	59	
Arteriovenous Fistulae	41 (70%)	
Arteriovenous Grafts	18 (30%)	
Average Lesion Length	33 mm (2 – 80 mm)	
Average Stenosis	83% (50 – 100%)	
Average Luminal Gain Post FLEX	25%	
Average Opening Balloon Inflation Pressure	6.5 atm (3 – 16 atm)	
Average Maximal Balloon Inflation Pressure	12.1 atm (4 – 24 atm)	
Residual Stenosis Post Treatment	8.2% (0 – 40%)	
Most Common Balloon Diameter	8 mm (n=26)	
DCB Post FLEX	11	