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## SERRATION TECHNOLOGY

By Peter A. Schneider, MD



We have had 40 years to perfect balloon angioplasty. Considering its simplicity and low cost, it is an incredible tool for dilatation. In many different procedures over multiple decades, balloon angioplasty has served as definitive therapy. As endovas-

cular approaches and techniques have been applied to more complex lesion morphology, multiple, more advanced definitive therapies have been developed, including drug-coated balloons, drug-eluting stents, stent grafts, bare-metal stents, and woven nitinol stents. All these technologies depend, to some degree, on vessel dilatation. Clinical experience and data are accumulating that demonstrate a need for reliable lumen gain and arterial expansion as part of the endovascular armamentarium for dilatation of lesions.

Drug-coated balloons in particular present a conundrum. Drug uptake may depend on the angioplasty mechanism creating dissection. Aggressive percutaneous transluminal angioplasty with slight oversizing, full expansion, and inflation within 30 seconds of entering the bloodstream are all desirable to promote drug transfer and good results. At the same time, interventionists are attempting to limit dissection by careful balloon technique so that the arterial surface will be smooth.

This is where the value of obstructive lesion treatment with a product like the *Serranator*° (Cagent Vascular) could make a difference in ensuring optimum lumen



gain. Serrations in particular may be a good way to dilate a vessel. By creating microchannels, the *Serranator*\* provides a line along which the serration balloon energy will dissipate, creating more predictability and control of the lumen expansion. The concept of creating serrations is new to angioplasty; however, it is widely used across multiple industries.

I believe this new technology will offer the same simple, familiar, versatile, easy-to-use features we all know well of standard angioplasty.

## **FUN FACT -**

The name *Serranator*° is a combination of the words "serrate" and "serenade."

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