

An Endovascular Solution for Aorto-Iliac Occlusive Disease

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The current standard of care of aorto-iliac occlusive disease is still in surgical repair with high 5-year patency rate of 87-91% while complication rate of 8-12% and mortality rate of 4%. However, there is feasibility of endovascular treatment for TASC II C&D lesion in case of not good candidate for surgical repair with promising regarding in safety, mid-term durability, technical success and lower morbidity. STAG RCT trial confirms that primary stenting improved technical success and reduced major procedural complication rate comparing with PTA alone in iliac occlusion. However, there is no significant difference in 1^{ry} or 2^{ry} patency at 1 year or 2 years. To compared the technique of stenting, DUTCH iliac stent trial shows similar result in term of patency rate, ABI and quality of life between primary stenting and provisional stenting. However, this trial does not include more complex lesion; >10cm or CTO > 5cm. About more complex lesions, meta-analysis of stent data shows promising result with high technical success rate of 90%, 5 year 1^{ry} patency rate of 60-86%, 2^{ry} patency rate of 80-89% and limb salvage rate of 98%. The update ACC/AHA guideline 2011 also supports to 1^{ry} stenting of CIA and EIA with class I recommendation.

To compare between metallic balloon expandable stent and self expandable stent, there is no clinically available to support the difference in clinical outcome. However, there is superior patency in covered stent compared to bare metal stent about 92% vs 62% at 1 year when kissing stenting was performed. The COBEST trial confirms restenosis rate is significant lower in the cover stent, especially in the more complex TASC II C&D lesions. It may reduce the risk of distal embolization, prevention of in-stent re-stenosis and risk of rupture. Disadvantages of cover stent are requiring bigger vascular sheath and possible coverage major side branches. Other options for more complex lesions are CERAB or using aortic device. With CERB configuration may reduce the radial mismatch or dead space with high conformation ratio. Endologic AFX II is the aortic device which can preserve the aortic bifurcation and not limit the future contralateral intervention.