

New Generation Venous Stent to Treat May-Thurner Syndrome

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Editorial

May-Thurner Syndrome (MTS) is an uncommon cause of venous obstruction related to focal external compression, it is characterized by compression of the left common iliac vein by the right common iliac artery and, when such anatomical change causes symptoms that may impair the patients' health related quality of life, treatment is indicated [1-5]. Currently we opted for endovascular treatment with satisfactory outcomes, for it resolves the symptoms by recanalization of the venous system [1-4].

The Sinus-Obliquus® iliac venous stent (Optimed, Germany) is a self-expanding oblique hybrid nitinol stent to treat MTS. The stent has a proximal closed-cell section that provides high radial force at the blocked site; with an oblique design (35°) at the proximal end prevents jailing of the contralateral iliac vein or vena cava occlusion [3]. The open-cell distal segment affords flexibility and less radial force to better accommodate the curved anatomy of iliac vein (**Figure 1**) [3,4].

MTS can generate symptoms such as pain, edema, varicose veins, ulcer and deep venous thrombosis. In 1956, May and Thurner, in a corpse study, described the physiopathology of the disease at where hypertrophic alterations observed in the intima were associated with chronic mechanical stress, induced by the pulsations of the right common iliac artery on the common iliac vein left against the vertebra lumbar [4-6]. In 1965, Cockett and Thomas described the syndrome compression of the iliac vein correlating the symptoms, described previously by May and Thurner [4-7]. Since then, treatment of this syndrome has been sharing opinions about conservative treatment or surgical approach, especially after the advent of Endovascular treatment [1-5]. Current endovascular technique brings excellent results in the recanalization of the iliac venous system, in that group of patients with exuberant symptomatology, subjecting the patient to minimal surgical trauma [1-5]. See an example of using the Sinus-Obliquus® iliac venous stent, in a patient with symptomatic MTS, successfully treated by venous balloon angioplasty and stent placement (**Figures 2 and 3**).

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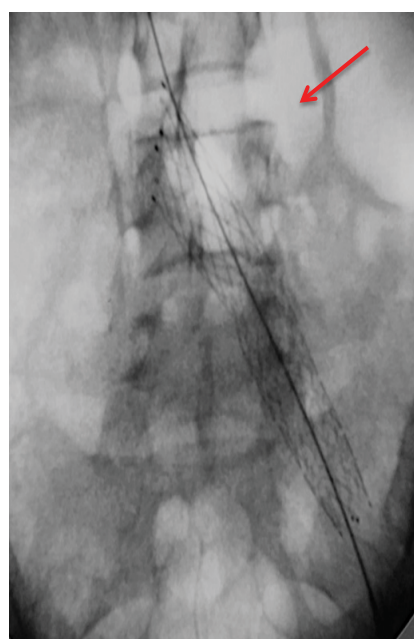


Figure 1 The Sinus-Obliquus® iliac venous stent, Markers for correct rotational positioning (Red arrow).

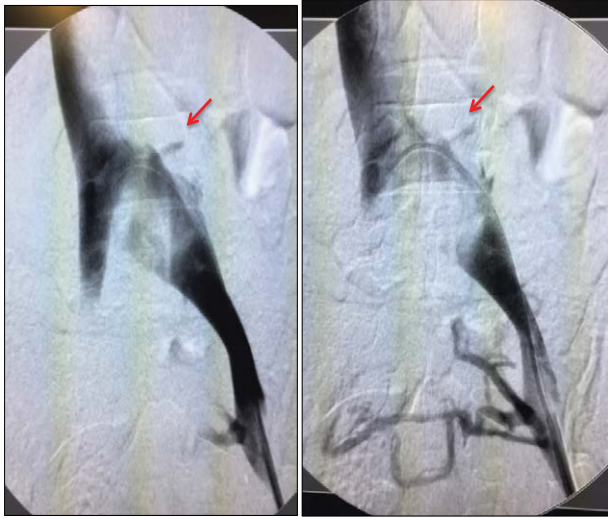


Figure 2 Perioperative phlebography showing multiple dilated veins with intense collateral circulation, pelvic veins and the "impression" of the iliac artery on the left vein (red arrow).

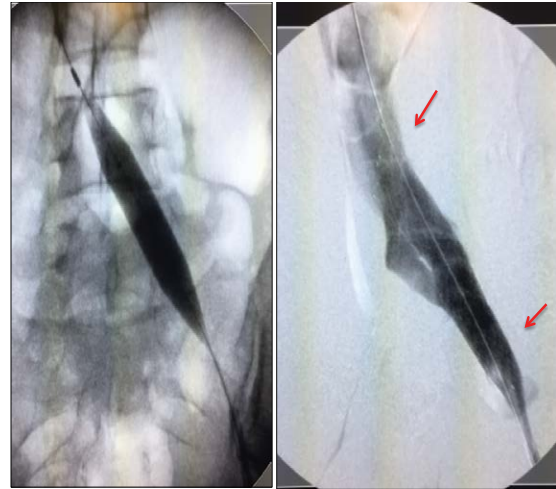


Figure 3 Respectively, from left to right: Balloon angioplasty for predilation of the left common iliac vein using a 14 × 40 mm high-pressure balloon catheter and final phlebography showing an implanted Sinus-Obliquus® iliac venous stent (red arrow) 16 × 100 mm, and absence of collateral circulation.

References

- 1 Cunha Junior JR, Neves DQ, Ocke Reis PE (2011) Tratamento endovascular da síndrome de compressão da veia ilíaca (May-Thurner)—relato de caso. *J Vasc Bras* 10: 1-5.
- 2 Raju S, Owen S, Neglen P (2002) The clinical impact of iliac venous stents in the management of chronic venous insufficiency. *J Vasc Surg* 35: 8-15.
- 3 Stuck AK, Kunz S, Baumgartner I (2016) Patency and clinical outcomes of a dedicated, self-expanding, hybrid oblique stent used in the treatment of common iliac vein compression. *J Endovasc Ther* pp: 1-8.
- 4 <http://www.leipzig-interventional-course.com/media-library/linc-2015/live-cases/>
- 5 Kibbe M, Ujiki M, Goodwin A (2004) Iliac vein compression in an asymptomatic patient population. *J Vasc Surg* 39: 937-943.
- 6 May R, Thurner J (1957) The cause of the predominantly sinistral occurrence of thrombosis of the pelvic veins. *Angiology* 8: 419-427.
- 7 Cockett FB, Thomas ML (1965) The iliac compression syndrome. *Br J Surg* 52: 816-821.