

The overtreatment of illusory May Thurner syndrome

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Introduction

Recently, an excellent article of van Vuuren *et al.* described in healthy volunteers an impressive prevalence of angiographic signs usually indicative of May Turner syndrome (MTS).¹

In 80% of participants, at least two signs indicative of May-Thurner compression were seen. In 70% healthy subjects, collaterals were found to be the most typical picture of significant venous obstruction. An angiographic sign of >50% compression was found to be an indication to stent in 55% of healthy subjects! Overtreatment should not be underestimated as previous research has already shown that only 63% of patients treated for MTS showed a clinical treatment effect. Moreover, 24% did not show a clinical response to treatment and 14% demonstrated some fading of symptoms.¹

In our clinical practice we observe the same by the means of ultrasounds, which show in asymptomatic patients left iliac vein (LIV) compression (Figure 1 left). In similar cases we slightly increase the gravitational overload and repeat the investigation with the subject in semi-settled 45° position.² The presence of an illusory MTS is followed by the relief of the compression and flow recovery in the left iliac vein (Figure 1 right). Nowadays MTS is reported by the word of mouth as a compression of the right iliac artery on the LIV. To the contrary, May and Thurner original post mortem dissection on 430 cases showed a combination of intraluminal obstacles and LIV compression in about 20% of cases. They simply hypothesized that the intraluminal obstacles, the true cause of venous obstruction, could be favorite by the compression.³ Their impressive original pictures corroborated by histology show a variety of intraluminal defects today classified as truncular venous malformations⁴ (Figure 2).

The original figures of the Angiology article published over 60 years ago are com-

pletely mirrored by the modern IVUS, which currently may nicely depict truncular venous malformations (Figure 3). It is mandatory to improve preoperative diagnostics to avoid useless and harmful overtreatment to arrive at correct surgical indications. It is clear that illusory MTS occurs whenever the compression is reversible. The ultrasound manoeuvre herein described could become an initial screening useful also to avoid more invasive or expensive diagnostic steps, demonstrating rapidly the presence of illusory MTS. To the contrary, the real MTS is related to not reversible compression and/or to associated intraluminal defects.

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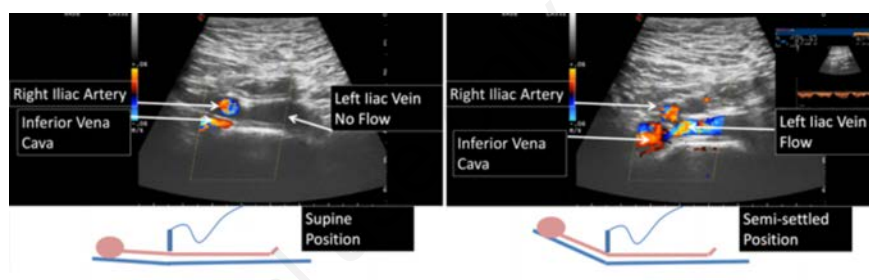


Figure 1. The semi-settled 45° position to assess the presence of illusory May Thurner syndrome at ultrasounds performed in supine position.

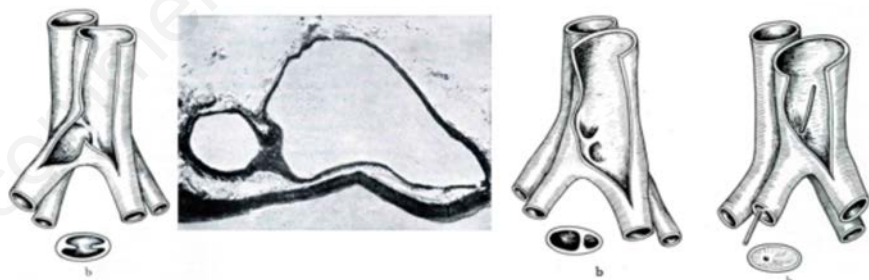


Figure 2. The original pictures and histology of intraluminal obstacles demonstrated by May and Thurner in their original post mortem study. They simply hypothesized that primary venous obstruction could be favorite by the pulsatile compression, which nowadays is considered as May Thurner syndrome.

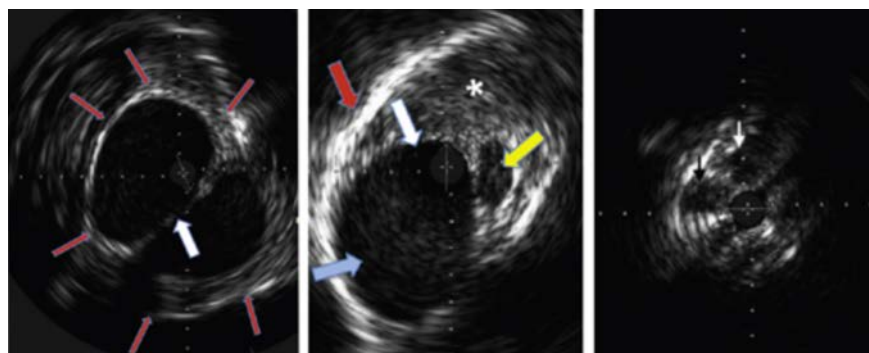


Figure 3. IVUS in case of venous truncular malformation due to intraluminal defects causing primary venous obstruction.

The need of a new diagnostic algorithm

The article of van Vuuren *et al.* clearly demonstrates how the compression of the LIV is a common phenomenon, which can be very frequently observed in normal subjects. The article also demonstrates that angiographic criteria like >50% stenosis and/or collateral circulations, which are usually used to give indication for stenting the vein, can be normally present in asymptomatic patients. It is not rare that over-treatment starts from the absence of any objective and/or subjective symptomatology. An ideal diagnostic algorithm would take into consideration patients with edema, swelling, signs and symptoms of venous hypertension reported at the level of the left lower limb. Non-invasive test should be initially considered in the patients above. We recommend the echocolorDoppler test depicted in figure 1, eventually corroborated by plethysmography either in semi-settled position and in supine, with and without leg elevation.⁴⁻¹⁰ Patients with consistent result of the non-invasive assessment could be take into consideration for angio-MR and angio-CT, eventually for invasive studies and stenting the vein.

To the contrary patients with inconsis-

tent symptomatology, patients with illusory MTS at ultrasound and/or plethysmography have to be excluded from further studies.

This proposal needs of urgent studies because are completely lacking in the field in order to avoid both non-ethical over treatment of patients and increased health related cost.

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