Left Ovarian Vein Reflux – An Ascending Disease Progression Pattern?

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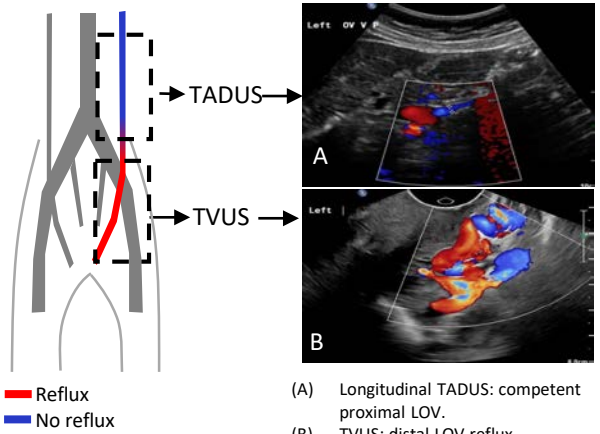
Objectives:

To report the duplex ultrasound pattern of left ovarian vein (LOV) incompetence.

Methods:

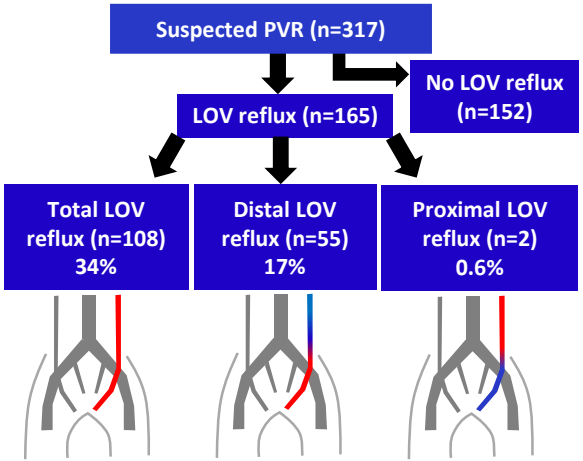
Retrospective data was obtained regarding the LOV reflux pattern in all female patients that received pelvic venous investigations between January 2016 and July 2017. Suspected Pelvic Venous Reflux (PVR) is imaged with transvaginal duplex ultrasonography (TVUS) and transabdominal duplex ultrasonography (TADUS), with the patient upright at 45° according to the Holdstock/White/Harrison protocol. PVR is treated with Pelvic Vein Embolisation (PVE).



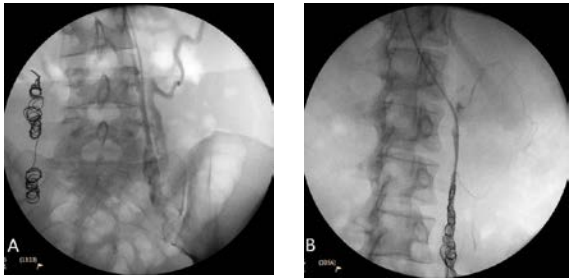
(A) Longitudinal TADUS: competent proximal LOV.
(B) TVUS: distal LOV reflux

Results:

Neither patient with proximal LOV reflux presented solely with a reflux disorder; one had Nutcracker syndrome and the other had a previous oophorectomy.



The patient cohort with distal LOV reflux had a mean age of 47 years (range 25-78), with a mean parity of 2 (range 0-6). Of the patients with distal LOV incompetence, 45/55 (82%) had lower limb varicose veins, and 33/55 (60%) had symptoms of pelvic congestion syndrome. One patient with distal LOV reflux had Nutcracker syndrome. The remaining 54 patients presented with reflux disorders only. Currently, 24/55 (44%) have had successful treatment with PVE.



Contrast venography showing (A) distal LOV reflux fed by renal collateral with atrophic proximal vein and (B) post-embolisation of incompetent distal left ovarian vein.

5 patients had venous collaterals in communication with the incompetent distal LOV. In 3 patients distal reflux was associated with a venous collateral from the renal vein, and in 2 patients by ovarian plexus collaterals. The proximal LOV segment in all 5 patients was tortuous, atrophic, and in some cases completely occluded.

Conclusions:

In female patients with an incompetent LOV, venous reflux occurs in either the total or the distal vein. In accordance with previous findings regarding ascending venous reflux in the lower limb saphenous trunks[1-3], the authors postulate an ascending pattern of venous reflux in the LOV.

References:
1. Faissiadis N et al. Phlebology; 2002. 2. Abu-Own A et al. Br J Surg; 1994 3. Hollingsworth et al. Phlebology; 2001