Postpartum Right Ovarian Vein Thrombosis (ROVT) Left LE DVT

Nasser Algharem, MD, FRCR, EBIR-ES.

KING KHALED HOSPITAL NAJRAN
Disclosure

Speaker name: Nasser Algharem

☐ I do not have any potential conflict of interest
Clinical History –

A 30-year-old female patient presented with postpartum left lower extremity pain and swelling (DVT) as well as right-sided severe lower abdominal pain, she was on day 20th postpartum.
Pre-treatment imaging –

Contrast CT was done and showed an enlarged and congested right ovary with thrombosis of the right ovarian vein as well as its draining IVC segment along with left iliac and common femoral vein DVT.
The patient was referred by OB/GYN to IR for endovascular mechanicopharmacological management.
Treatment Options –

We suggest providing a mechanical thrombectomy without thrombolysis due to the recent delivery.

Using the left popliteal vein approach runs confirm thrombosis of the deep and common femoral veins, the external and common iliac veins, and mechanical thrombectomy using **CAT 8 Penumbra** catheter, suction was performed and balloon angioplasty for the iliac veins by 14mm balloon was performed.

The right ovarian vein was selected and microcatheter advanced and pushes of 10mg of rTPA was infused within the thrombus and the thrombosed segment of IVC was recanalized by CAT8 thrombectomy catheter.
Results

Successful recanalization of the left LE venous system and IVC. Rt ovarian vein thrombolysis was performed. The patient was discharged three days later with improving LE swelling and absence of the left lower abdominal pain.

Patient seen after 3 months and was clinically and sonographically normal.

She is at anticoagulation medical clinic.
Discussion:

Right ovarian vein thrombosis (ROVT) is a rare but potentially serious condition that can occur in the reproductive age. It is often associated with pregnancy or the postpartum period, but can also occur in the setting of pelvic inflammatory disease, ovarian tumors, or other conditions.

Several studies have shown that early diagnosis and treatment of ROVT can lead to improved outcomes and reduced morbidity. In particular, catheter-directed thrombolysis/mechanical thrombectomy has been shown to be effective in restoring venous patency and reducing the risk of complications such as pulmonary embolism.

However, the optimal management of ROVT remains unclear.
Ovarian Veins Anatomy:
The ovarian veins originate from the ovaries as 5–6 pampiniform plexi that travel behind both sides of uterine body, join the ovarian vein, and then travel along the ovarian artery. The 2 ovarian veins travel upward along the psoas muscles. The right ovarian vein joins the inferior vena cava, while the left ovarian vein joins the left renal vein.
Companion Cases
Right Ovarian Vein Syndrome
A 47-year-old multiparous woman who had conceived 4 times; had been admitted many times over the past one year as a result of suffering from severe right renal colic, listlessness, fatigue, and gross haematuria.

The patient had a long history of multiple medical visits to ER, and urology clinics and had been undergone a cystoscopy and antegrade pyelogram for a possible diagnosis of right sided mid ureter stricture.
She was diagnosed as a case of recurrent UTIs and possible passage of tiny stones earlier, then as a stricture at the right ureter due to external compression or internal mucosal neoplastic changes and ureteroscopy and biopsy was advised.

After the procedure which was negative and the wire and scope passed freely without difficulty, a colleague urologist call me for percutaneous nephrostomy and retrpgrade pyelography.
I set with the patient and revised all previous CT, MRI, IVU and US thoroughly and the clinical symptoms was pointing to a strange increase on pain on lying down and around the cycle.

Second look to the imaging points to the possibility of Rt OVS; and I discuss this possibility and the options of management with the patient and the urorogist both strongly agreed for intervention as she had been suffering for years and tried most of the available management options.
A week later

3 months later
Companion Cases

May-Thurner Syndrome with sever labial varices
A 23-year-old G3P3 lady presented with swelling, heaviness, reticular and varicose veins on her left lower extremity and buttock associated with a progressively enlarging left labia majora getting more bulky after each pregnancy. Her concern was evident after her first pregnancy 5 years ago and get more enlarged with subsequent pregnancies. She has no history of DVT and her main concern is a cosmetically annoying pendulous large left labia majora reaching about 10 cm down in between the thighs.
Clinical evaluation of the patient was made and showed a large Lt labia full of warm like dilated vein and was increased upon Valsalva maneuver. CT scan was done and suggest the diagnosis of MTS, which was confirmed by MRI and venography. Iliac vein stenting and pelvic and labial veins sclerotherpy and embolization by foamed polidocanol 3% and metallic coils sandwich was planned and done.
Introduction:
May-Thurner syndrome (MTS) is an anatomically and pathologically variable condition leading to venous outflow obstruction as a result of extrinsic venous compression in the iliocaval venous territory. MTS is defined as extrinsic venous (left iliac vein (LCIV)) compression by the arterial system (Right common Iliac artery, RCIA) against bony structures (L5).
With partial venous obstruction, the condition can be asymptomatic, but progression with symptoms related to chronic venous hypertension or venous occlusion can occur, with or without venous thrombosis.
Result:

After the stenting and coiling the patient feel better for heaviness, swelling, pain and postural changes. The Labial varices much more improved and was on local foam sclerotherapy every second week for 3 months and now labial size reduced for more than 2/3 original size and is referred for plastic surgery.
Conclusion:

Venous stenting offer a good endovascular reconstruction of compressed or occluded iliac veins secondary to MTS appears to be safe and effective. Foam sclerotherapy achieve a good volume reduction of the varicosed labia.
Labial varices

Lt Thigh Varicosity
Venogram showing LCIV obstruction & collaterals

LCIV Balloon

LIV stenting

LCIV Balloon
Thank you