# THE LUBLIN PROTOCOLE OF THE OVARIAN VEIN EMBOLIZATION IN THE MANAGEMENT OF PELVIC VENOUS DISORDERS

## DIAGNOSIC WORK-UP INCLUDING PATIENT SELECTION AND RISK ASSESMENT

- Referral for consideration of ovarian vein embolisarion (OVE) is restricted to women with a clinical phenotype consistent with pelvic venous disorders (PeVD) who meet at least one recognised ultrasonographic criterion, have had alternative causes of chronic pelvic pain excluded or inprobable, and remain symptomatic despite at least three months of conservative therapy.
- Evaluation include a comprehensive medical history and detailed pain characterisation (intensity, cyclicyclicality, triggers etc.).
- A systematic gynaecological pelvic examination is required (external inspection, speculum and bimanual assessment, with rectovaginal examination where indicated).
- Clinical assessment comprise targeted inspection and palpation of lower-limb, vulval, or perianal varicosities if present.
- Transvaginal ultrasonography, as the final stage of selection, should identify features of PeVD: ovarian vein dilatation (≥5 mm), reduced flow velocity (≤3 cm/s), reflux (≥1 s), and dilated arcuate myometrial veins communicating with pelvic varicosities, while excluding alternative pathology.
- In cases of diagnostic uncertainty, further imaging exams (like magnetic resonance imaging) and/or other specialist consultation should be undertaken.
- Patients who do not fulfil the diagnostic criteria for PeVD do not undergo venography. Instead, they are referred for further diagnostic evaluation of chronic pelvic pain.
- Patients meeting the aforementioned criteria are referred for diagnostic venography prior to OVE.

## PRE-PROCEDRUAL PREPARATION

- Pre-procedural assessment include a 12-lead electrocardiogram and laboratory investigations (full blood count, coagulation profile, electrolytes, creatinine, TSH, CRP, ferritin, urinalysis), together with valid cervical cytology and ABO typing. Abnormalities warrant deferral pending optimisation.
- Thromboprophylaxis with low-molecular-weight heparin (LMWH) is administered 12 hours prior. Patients remain nil per os and receive intravenous isotonic hydration immediately pre-procedure.

## PROCEDURAL CONDUCTION

- The procedure is performed under local anaesthesia, with percutaneous access to the right common femoral, brachial, or internal jugular vein obtained under real-time ultrasonographic guidance.
- The embolisation strategy is uniform across all affected venous territories. The fundamental therapeutic principle involves the obliteration of incompetent veins or venous plexuses through the administration of a sclerosant foam, in conjunction with mechanical occlusion of aberrant inflow pathways via coil deployment.
- Treatment is recommended to proceed in a distal-to-proximal sequence, with primary attention directed to the most distal tributaries of both the superficial and deep pelvic venous plexuses.
- Initial venography is performed using an iodinated contrast medium. Under continuous fluoroscopic control, the contrast agent is subsequently displaced by the injected sclerosant foam.
- Complete displacement of the contrast column is interpreted as confirmation that the foam has reached and adequately filled the terminal venous branches, indicating effective distribution within the target vascular network.

## POST-PROCEDURAL CARE

- Immediately after the procedure patient is kept supine with a compression dressing applied to the puncture site for three hours.
- Basic analgesia, if required, comprises paracetamol and nonsteroidal anti-inflammatory drugs.
- Discharge instructions include continuation of prophylactic LMWH for seven days, continuation of venoactive therapy, and use of graduated compression stockings until the first outpatient review.

## FOLLOW-UP ASSESMENT

- Post-operative follow-up after OVE is scheduled at three and six months.
- At each visit, a standardised clinical history, physical examination, and transvaginal ultrasound are performed, mirroring the pre-embolisation assessment.
- At the conclusion of the six-month post-procedural surveillance period and following the patient-reported symptomatology, objective clinical findings and pertinent imaging, decision shall be made as to whether re-embolisation is indicated.