



FIRST STEP: RECOGNITION

Pelvic Venous Insufficiency, reflux recognition, diagnosis

By Manu Aggarwal

We have all seen it. Varices that arise high on the leg – with or without neovascularity, with or without previous venous stripping. The kind that seem to just keep going up the leg rather than down.

The sonographer says I follow it further up into the labia or groin. On examination you may see suprapubic varicose veins or a pattern of varices that just don't seem to follow any truncal vein. The great saphenous vein has reflux, but the varices don't arise from this finding. Is this reflux clinically significant? It doesn't make sense...the dots don't connect...where is the source?

Often these patients, once questioned, have deep pain in the pelvis with long periods of standing or sitting (such as after long car rides). They may even have gastrointestinal symptoms, including irritable bowel syndrome. Often women's symptoms get dismissed as chronic pelvic pain, and after years of ingesting pain pills, these patients may have a partial hysterectomy only to still suffer from pain after surgery.

Chronic Pelvic Pain (CPP), depending on what source you find, affects up to or more than 30 percent of women in a gynecologist's office in a day. Unfortunately, many of these women (10 percent or more of the CPP patients) have no diagnosis of their condition. The American College of Gynecology and Obstetrics have no mention of pelvic venous insufficiency (PVI) as a cause on their website's patient information page. Nor do they have any mention on their clinical guidelines page online. Some practicing gynecologists in my own community do not even think PVI is a possibility. Some consider PVI a "sham" diagnosis that doesn't exist.

Regardless, patients need proper evaluation by their gynecologist to rule out the more common causes of pelvic pain. However, there also needs to be more collaboration between these specialties to avoid unnecessary hysterectomies or prolonged pain leading to a decreased quality of life and furthermore psychological and social sequelae.

PVI results from broken valves on the inside of the gonadal (ovarian) veins. The disease process was previously referred to as Pelvic Congestion Syndrome; however, the term PVI identifies the root cause and is newer terminology. Instead of gonadal venous blood flowing up and out of the pelvis, the blood follows gravity flowing in the wrong direction - causing the pelvic veins to dilate.

Many physicians and institutions have done extensive research in this field and have developed protocols for diagnosing and treating these patients. They all have been strong proponents in bringing PVI/PVC to the forefront across the globe. There have been extensive discussions on symptoms, diagnosis and classification systems, and of course, treatment.

However, we still have not come to enough ultimate conclusions in treatment, which doesn't do our patients justice when many insurance companies still determine Pelvic Vein Reflux to be "investigational."

The first step in the field of phlebology is for sonographers, phlebologists and patients to recognize these patterns. It cannot be a simple "this has reflux and needs to be corrected." Up to 40 percent of women have ovarian vein reflux; these veins can arise from an incompetent ovarian vein in the pelvis, which can give rise to varices that descend into the GSV more distally. The number of patterns are many; however, recognition is key.

The next step, ideally, is to perform a transabdominal and transvaginal ultrasound to assess the incompetence and vessels involved. Many studies have determined that traditional CT venogram or MRI may miss the diagnosis or overestimate the size of the vessels.

The other component to consider is compression of the pelvic vessels that can also lead to PVI symptoms. Currently in our community, we do not have the ability to perform diagnostic ultrasound for PVI. The treating radiologist prefers CT venogram to map out the plan for embolization using IVUS. We are in the process of adding ultrasound for diagnostic purposes; however, it is pointless as CT/MRI is still preferred by the treating physician.

Aside from the diagnostic component of PVI, the treatment is limited by insurance companies at this time. Many still consider this investigational. Of the 10 or more patients we have helped successfully overturn their denial from insurance, every single patient after embolization is pain-free, and no longer suffers from their PVI symptoms.

Many insurance companies require the trial of medication management prior to approval.

Medical treatment of PVI includes psychotherapy, progestins, danazol, phlebotonics, gonadotropins receptor agonists (GnRH) with hormone replacement therapy (HRT), dihydroergotamine and nonsteroidal antiinflammatory drugs (NSAIDS). Currently, it is acceptable to use medroxyprogesterone acetate (MPA), or the GnRH analogue goserelin to suppress ovarian function and/or increase venous contraction. MPA may be given orally 30mg daily for six months. Goserelin acetate is dosed as an injection of 3.6mg monthly for a six-month period.

But many patients do not want to deal with the side effects of MPA, which can include weight gain and hirsutism. Goserelin isn't really any better with common reactions being vaginitis, headache and emotional

lability. However, some insurance companies are arbitrarily asking patients to use these medications.

In addition to these medications, in our practice, we have successfully used micronised purified flavinoid fraction (MPFF) to help mediate the inflammatory markers present in PVI. A study done by Simsek in 2007 showed that patients needed at least three months to show any improvement. He studied 20 women over the span of six months and found that the pain symptoms were better on Daflon daily use.

In addition to medication management, surgical management isn't new. In the 1980s, surgical treatment was described by Rundqvist et al, which consisted of resection of the left ovarian vein proving useful in relieving symptoms of pelvic congestion syndrome. Despite the reason for hysterectomy, studies reported residual pain in 33 percent of patients and a 20 percent recurrence rate. Thus, surgery then included surgical ligation or resection of ovarian veins.

With these new and constant advances in diagnosing and treating PVI, we, as phlebologists, need to be aware of the connection of PVI and leg varices. We need to teach these protocols to reliably correlate with the diagnosis. There also needs to be more collaborative efforts between specialists to develop a standard of care where everyone is comfortable. **VTN**

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