

PELVIC CONGESTION SYNDROME

AN OFTEN MISSED DIAGNOSIS



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Pelvic pain, experienced by many women in the course of their lifetime, can be a difficult problem for both patients and their physicians to diagnose and treat. Chronic pelvic pain, defined as pain lasting six or more months, affects one-third of all women. Because pelvic pain may have many etiologies (causes), most of which have

different treatments, it is often difficult for the physician to pinpoint the "culprit" lesion. After a standard workup and a battery of tests and exams fail to lead to a diagnosis, many women are told that their symptoms are "all in their head." Needless to say, dealing with chronic pain of any variety can be very emotionally and physically stressful for the patient, and those stresses can spill over to affect their work, health, and relationships with their families and others.

Studies have identified that 30 percent of women with chronic pelvic pain have a disorder called pelvic congestion syndrome (PCS) as the sole cause of their pain and an additional 15 percent have PCS in conjunction with additional pelvic pathology. PCS is a disorder caused by "leaky" valves in the ovarian and internal iliac veins in the pelvis, similar to varicose veins in the legs. In a normally functioning vein, valves act as one-way doors to direct blood flow back to the heart. However, in patients with PCS, the valves fail to close completely, allowing blood to flow backwards. Over time, this causes the veins to stretch and thin as well as to bulge outward, creating feelings of pressure and pain. These pelvic varicose veins can affect the uterus, ovaries, and vulva. PCS is often missed in the workup of

patients with pelvic pain since veins distend with gravity and will often collapse when the patient is examined by her physician while lying down or undergoes radiologic tests such as ultrasound.

Symptoms are most often described as a "dull" and "aching" type of pain in the lower back or pelvis, which is typically the worst in the evening or after standing for long periods of time. Additional symptoms include painful sexual intercourse (dyspareunia), painful periods, bladder irritability, abnormal menstrual bleeding, vaginal discharge, and visible varicose veins on the vulva, buttocks, or thigh. Many women suffering from PCS may have been treated for varicose veins in the legs as well.

The exact cause of PCS is not fully understood; however, it is felt to be related to hormonal and anatomic factors. Women suffering from PCS are typically in their childbearing years and have had multiple pregnancies. In fact, PCS is very uncommon in women who have never been pregnant as the ovarian veins tend to increase in size with pregnancy. Women with a "tipped" or "tilted" uterus also have a higher risk of PCS, as do women with polycystic ovarian disease and other hormonal abnormalities.

After a thorough pelvic examination, additional radiologic tests may be useful to diagnose PCS and to exclude other pelvic pathology as a source of symptoms. Other conditions such as uterine fibroids, cancer, adenomyosis, endometriosis, and uterine prolapse can produce similar symptoms, yet require very different treatments. A pelvic or transvaginal ultrasound is often an initial exam ordered by the physician. While not particularly effective at diagnosing PCS, it is useful to exclude some of the other causes of pelvic pain. Pelvic MRI is considered by many specialists to be the best way of diagnosing pelvic abnormalities.

This pelvic MRI can be performed in a special manner to specifically look at veins in the pelvis. However, since the MRI is also performed with the patient lying down, a negative MRI does not definitely exclude PCS.

The best test for diagnosing PCS is a minimally invasive test known as a venogram. A venogram is performed by a specialized physician called an Interventional Radiologist. In the exam, a small tube is placed in either the jugular vein in the side of the neck or in the femoral vein in the groin. Next, a second thin, hollow tube called a catheter is placed into the pelvic veins and x-ray dye is injected, allowing the physician to directly visualize the pelvic veins and determine if there are any abnormal connections between them. While this is a very safe procedure, this is often the last test performed since it does require direct puncture into the vein. If the venogram demonstrates evidence of pelvic varicosities, treatment can often be performed at the same time.

A sclerosing agent, similar to the ones used to treat varicose veins in the legs, can be injected through the catheter placed into the left and right ovarian veins. This causes the abnormal veins to scar down and collapse and prevents them from distending with blood. After the sclerosant is injected, the main vein is embolized at multiple levels with metal coils to prevent the pelvic veins from opening back up over time. About two to six weeks after the ovarian veins are treated, the other pelvic veins, the internal iliac veins are treated with the sclerosing agent as well. In addition to being less expensive than surgery and much less invasive, embolization offers a safe and effective alternative treatment. Embolization can be successfully performed technically almost 95-100 percent of the time. 85-95 percent of women undergoing the procedure report improvement in their symptoms following the treatment. However, the pelvic veins will never return to normal, and some women may require further treatment.



The best test for diagnosing Pelvic Congestion Syndrome is a minimally invasive test known as a Venogram. A Venogram is performed outpatient by a specialized physician called an Interventional Radiologist.

In Interventional Radiology (also called IR), physicians not only interpret medical images but also use them to guide minimally invasive surgical procedures that diagnose, treat, and cure many kinds of conditions. Imaging modalities used include fluoroscopy, MRI, CT, and ultrasound.

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