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SYSTEMATIC REVIEW OF MAY-THURNER SYNDROME WITH EMPHASIS ON GENDER DIFFERENCES



CHICAGO, Illinois, May 2018 – A look at 50 years of research on May-Thurner Syndrome, in which a pelvic artery overlaps and compresses a vein, confirms that it affects women twice as often as men, but that men experience more pain with the syndrome.

As reported in the May 2018 edition of the *Journal of Vascular Surgery Venous and Lymphatic Disorders*, researchers from the University of Pittsburgh and Yale University led by vascular surgeon Dr. Cassius Iyad Ochoa Chaar, performed an extensive review of the literature dating back to 1967. They found 174 articles dating back to 1967, along with consistent descriptions of the syndrome.

Ultimately, they compiled the information gathered within 137 articles describing the presentation and treatment of 1,569 patients (976 females, 480 males). One of the main features of the article was determination of differences in presentation with respect to patient gender.

The 50-year review of May-Thurner research found:

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- Female patients outnumber males 2:1
- Females present at average age of 39 compared to 46 for males
- Males reported more pain and swelling
- No gender difference in deep vein thrombosis (89% vs 82%), but significant difference in pulmonary embolism (10% vs 2%) in females

Treatment observations included:

- Endovascular without thrombolysis 53%
- Endovascular with lysis 33%
- Surgery 7%
- Medical 7%

Summation of results demonstrated:

- 12-month iliac vein patency
 - 96% for endovascular therapy
 - 64% for open surgery
- Lower complication rate for endovascular therapy (3%) compared to surgery (8%)

“May-Thurner Syndrome is increasingly recognized as a cause of chronic venous insufficiency and a precipitating factor for venous thromboembolism,” notes Dr. Chaar. “Despite controversy about the exact definition of the pathology, this review confirms endovascular treatment to be safe and effective therapy for acute venous thrombosis or chronic compression.”

Evaluation of leg swelling and pain often involves use of duplex ultrasound to determine the presence of venous occlusion and reflux. More proximal lesions, such as non-thrombotic iliac vein lesions or ilioacaval venous thrombosis, can be missed as the more easily evaluated femoral and popliteal vessels may be normal in appearance. Close examination of the respiratory variation of waveforms observable at the femoral level can minimize missing these lesions.

An important cause of iliac venous compression, which is nearly always on the left side of the body, is the crossing of the right common iliac artery over the left common iliac vein. This is the most frequent form of all non-thrombotic iliac vein lesions.

In 1957, two German researchers, R. May and J. Thurner, performed an autopsy series of 430 cadavers and observed this anatomical compression in 22%. Cockett and Thomas first described a large series of patients presenting with this diagnosis in 1965, coining the term iliac compression syndrome. Up to 5% of patients with symptoms of chronic venous insufficiency have MTS.

In addition to the gender differences, the authors closely evaluated MTS treatment during pregnancy. Unfortunately, this evaluation was unable to come to any consensus on treatment in this difficult situation.

To download the complete article (link available from April 13, 2018 through June 30, 2018), click: vsweb.org/JVSVL-MTS

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