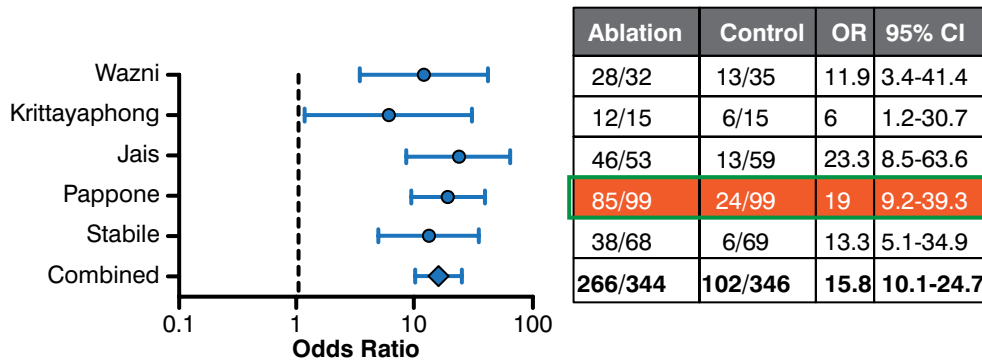




Figure 1. Ablation vs Medical Therapy in Atrial Fibrillation



Reproduced from Piccini JP et al. Pulmonary vein isolation for the maintenance of sinus rhythm in patients with atrial fibrillation: a meta-analysis of randomized, controlled trials. *Circ Arrhythm Electrophys.* 2009;2:626-633. With permission from Lippincott Williams and Wilkins/Wolters Kluwer Health.

electrophysiologists is that targeting only CFEs is no longer recommended.

Another method that can terminate persistent AF is alcohol ablation via the Marshall vein, which is a rudimentary structure that connects the proximal coronary sinus to the atrial appendage. However, the Marshall vein also supplies multiple ganglion plexi; therefore, Dr. Amancharla postulated that the mechanism of AF termination is blockade of the autonomic nervous system.

In conclusion, Dr. Amancharla stated that the lesson learned from this stepwise approach of ablation is that up to ~87% of patients experience AF termination with 3 hours of ablation. Importantly, the trigger is terminated slowly, and the exact trigger may not necessarily be known. However, despite the limitations of ablation, it is still favored over medical therapy in patients who have been failed by an antiarrhythmic agent, according to a systematic review (Figure 1) [Piccini JP et al. *Circ Arrhythm* 2009].

## Patient Presenting With Nonpitting Edema Diagnosed With MTS

Written by Phil Vinall

May-Thurner syndrome (MTS), also known as Cockett syndrome or ileocaval compression syndrome, is a vascular anomaly first described in 1956 by R. May and J. Thurner. This syndrome frequently involves pain and significant swelling of the whole limb; however, not all patients present with symptoms. When they do, besides pain and swelling, symptoms may include left leg pain and edema, pulmonary embolism, deep vein thrombosis, varicose veins, and chronic ulcerations.

Ramona A. Lappot Guzmán, MD, Medicina Cardiovascular Asociada, Santo Domingo, Dominican Republic, described a case of a male patient aged 16 years without past medical history who was referred to her practice after 10 months of pain and severe progressive nonpitting edema of the left leg. On examination, the swelling presented distally from the left thigh to the ankle. There was tenderness to the palpation but normal pulses, reflexes, and strength.

Ultrasonography showed a huge amount of thrombi in the left superficial femoral vein and the anterior tibia vein that persisted even after aggressive warfarin therapy. Extensive workup for thrombophilia, malignancies, and autoimmune diseases yielded negative results. Computed tomography angiography of the pelvis revealed inadequate venous opacification at the level of the iliac veins but no thrombosis, masses, or anatomic defects. Simultaneous venography and arteriography revealed normal anatomy of the arteries but did show an extrinsic compression of the left common iliac vein at the entry of the vena cava that was caused by an overlying right common iliac artery. This led to a diagnosis of MTS.

Treatment consisted of placing a vena cava filter below the renal veins and a stent where the left common iliac vein was compressed. Good expansion, antero-grade flow, and a lumen opening of 95% of normal were achieved. The patient was discharged 3 days later without complications and with considerable edema reduction. There was good long-term recovery, although the patient remains on warfarin.

Once the condition has been identified (best by venography), traditional therapy is anticoagulation and, recently, endovascular procedures. MTS should be considered when dealing with left leg pain.