

Review and commentary of key non-JVS-VL articles

Resist the inferior vena cava filter urge

A Multicenter Trial of Vena Cava Filters in Severely Injured Patients



Ho KM, Rao S, Honeybul S, Zellweger R, Wibrow B, Lipman J, et al. *N Engl J Med* 2019; 381:328-37.

Conclusions: In trauma patients admitted to the hospital, early prophylactic placement of an inferior vena cava (IVC) filter did not result in a lower incidence of either symptomatic pulmonary embolism or death.

Summary: This trial, conducted at four Australia hospitals, enrolled eligible patients following a major trauma with an injury severity score of greater than 15, had a contraindication to prophylactic pharmacologic anticoagulation, and were within 72 hours of admission. Of 1714 patients, 240 were enrolled and randomized to the retrievable filter group or no filter group (control). Filters were removed as soon anticoagulation could be started and all patients had mechanical compression. In this young group (39 years), the Injury Severity Score was 27 and more than 57% had traumatic cerebral contusions or hematomas. There was no difference in the composite primary outcome of symptomatic pulmonary embolism or death. Almost 5% of filter patients had trapped thrombus in the filter at removal and 31.5% did not have their filter removed for technical reasons or because of loss to follow-up.

Comments: This provocative study raises several points worthy of consideration. First, IVC filter placement should be individualized and not part of a routine trauma protocol when anticoagulation is contraindicated. Many times, anticoagulation can be started within a few days when the risk of bleeding decreases. Second, plans for filter removal need to be improved, as has been stated in many studies unless there is a medical reason to continue such as ongoing risk or need for multiple operations. Last, prophylactic IVC filters add a significant cost without much return and have their own inherent risks.

A word of caution with mesenteric venous thrombosis

Clinical Implications of Different Risk Factor Profiles in Patients With Mesenteric Venous Thrombosis and Systemic Venous Thromboembolism: A Population-based Study



Salim S, Zarrouk M, Elf J, Gottsäter A, Sveinsdottir S, Svensson P, et al. *J Thromb Thrombolysis* 2019; 47:572-7.

Conclusions: Patients with mesenteric venous thrombosis (MVT) have a higher prevalence of both solid and intra-abdominal cancer than patients with systemic venous thromboembolism (VTE) as well as a lower prevalence of factor V Leiden mutation.

Summary: This study was conducted in Malmö, Sweden, on a population of 1465 patients with VTE that was followed from 1998 to 2017 or death. All patients had thrombophilia profiles. Patients with MVT were younger, healthier, smoked less, and had fewer operations than other VTE patients. Cancer prevalence was higher (MVT 19.2% vs VTE 12.1%; $P = .026$) as was intra-abdominal cancer (MVT 16.7% vs 2.3%; $P < .001$). The prevalence of factor V Leiden mutation was lower in patients with MVT. Patients with MVT also had a much higher 30-day mortality rate than VTE patients (10.8% vs 0.5%; $P < .001$), but no difference in long-term mortality.

Comments: This is a fascinating population-based study showing that patients diagnosed with MVT in addition to standard treatment, need to have increased screening for cancer perhaps beyond the routine computed tomography scanning. Thrombophilia testing also needs to occur. Regardless, early mortality remains high, usually from intestinal infarction. Once though patients are beyond the early phase, continued examination and testing needs to continue in case of seemingly unprovoked MVT.

More than a flip of a coin

Randomized Clinical Trial Of Mechanochemical and Endovenous Thermal Ablation of Great Saphenous Varicose Veins



Vähäaho S, Mahmoud O, Halmesmäki K, Albäck A, Noronen K, Vikatmaa P, et al. *Br J Surg* 2019; 106:548-54.

Conclusions: In this prospective, randomized, controlled trial comparing endovenous thermal ablation with mechanochemical ablation (MOCA), both endovenous laser ablation (EVLA) and radiofrequency ablation (RFA) had higher great saphenous vein occlusion rates at 1 year with similar patient satisfaction.