# Device for the Treatment of Lower Extremity Deep Vein Thrombosis

### Technology

Surgeons and engineers at NYU have developed a novel method and device for the treatment of femoral/popliteal deep vein thromboses (DVTs) by using a combination of external compression of the extremity, along with an intravascular catheter-based device placed into a vein proximal to the location of the thrombus, for collection of the thrombus and prevention of embolization. The device has been specifically designed to be compatible with a well-established surgical procedure.

### Background

Approximately 900,000 Americans are affected by DVT each year. The consequences of DVT include the dreaded and life-threatening pulmonary embolism (PE), in which the clot travels to and lodges into the pulmonary arteries, and post thrombotic syndrome (PTS), in which damage to the valves in the lower extremity veins leads to chronic leg pain, swelling, and ulcers. Currently, these DVTs are managed with months-long anticoagulation medication that puts patients at risk of bleeding complications and does not mitigate the risk of long-term vein damage and PTS. The goal of anticoagulation is clot migration and not necessarily prevention of PTS. Approximately 60% of DVTs involve the femoral or popliteal veins. At this time, the current endovascular technology can only remove iliofemoral thrombus (i.e. those located above the groin), and acute treatment methods of femoral/popliteal DVTs are limited and not standardized, largely due to a lack of consensus on a safe and effective method for accessing and treating more peripheral clots.

### Intellectual Property

A provisional patent application has been filed on this technology.

**Technology ID**

GAR05-01

**Category**

Life Sciences/Medical devices

Arundithi Ananthanarayanan

**Authors**

Insoo Suh, MD,

Karan Garg, MD,

**View online page**