

## **Treatment Options for Deep Vein Thrombosis**



A recent study by Temple University School of Medicine researchers reviewed more than 90,000 cases nationwide to figure out the best way to treat deep vein thrombosis (DVT). The study was directed by Riyaz Bashir, MD, a specialist in interventional cardiology and vascular disease at Temple Heart & Vascular study and isn published in JAMA Internal Medicine.

DVT is the third most common cause of cardiovascular morbidity and death after coronary artery disease and stroke. Additional complications can also result from DVT since blood clots in the vein in the leg can break loose and travel to the lungs, resulting in pulmonary embolism. Nearly 1 out of every 1000 people per year suffers from DVT. Statistics show that approximately 6% of patients with deep vein thrombosis die within one month of their diagnosis.

Approximately 20 to 50% of patients suffering from above-knee DVT can go on to develop post-thrombotic syndrome (PTS) even if they are being treated with medical therapy and compression stockings. PTS can cause pain, swelling, itching, skin discolouration, heaviness in legs and skin ulcers. According to Dr. Bashir, there is a risk that patients may become disabled. Other consequences could include the inability to work and losing employment.

This study compared two treatment approaches for DVT: catheter-based thrombolysis and medical therapy. Catheter-based thrombolysis involved the insertion of a catheter to deliver clot-dissolving medication directly into the leg clot, and an anticoagulant agent was used as medical therapy. While previous literature has shown that the early removal of the blood clot using a catheter-based procedure can lead to a reduction in the incidence of PTS and can also help improve the patient's quality of life, the findings were not significant enough to draw any conclusions about the safety of this approach.

Dr. Bashir and his team compared 3594 patients who underwent the catheter-based procedure to the same number of patients who received anticoagulant agents alone. The findings showed that the in-hospital mortality rate was not significantly different between the two groups. However, the rate of blood transfusion was higher in the catheter group as compared to the medical group. Similarly, the rate of pulmonary embolism and the rate of intracranial haemorrhage were also higher in the catheter group. The catheter-based procedure required patients to spend more days in the hospital and was also more costly as compared to medical therapy.

This study helps further understand the ongoing medical debate regarding the safest and most effective way to treat this conditionThis is not to suggest that the catheter-based approach is ineffective. In fact, DVT patients can clearly benefit from this procedure. However, the study does highlight the need to select patients for this procedure carefully. According to Dr. Bashir, "it may be reasonable to restrict this form of therapy to those patients who have a low bleeding risk and have a high risk of PTS, such as patients with clots at or above their groins."

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