Prevention to Intervention

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INTRODUCTION

I am pleased to be involved with this supplement to *Endovascular Today.* The roundtable of experts addresses the important topic of treatment for acute deep venous thrombosis (DVT) and concludes by addressing the issue of DVT prophylaxis.

This is a diverse panel of experts representing interventional radiology, interventional medicine/cardiology, emergency care, and vascular surgery. It is revealing that each of the panelists believe that a strategy of thrombus removal is an important component of managing patients with extensive DVT, especially in those patients with iliofemoral DVT. It is also acknowledged that some DVT patients are at high risk of postthrombotic syndrome. Patients with thrombosis of the common femoral vein and the iliac system have occlusion of the single outflow channel of their leg, leading to severe venous hypertension and the increasingly severe postthrombotic morbidity that accompanies this proximal venous obstruction.

It is gratifying to see that emergency physicians are becoming increasingly attuned to the benefit of thrombus removal strategies, as indicated by Dr. Charles Pollack. I would recommend Dr. Pollack's recent review article entitled, "Advanced management of acute iliofemoral deep venous thrombosis: emergency department and beyond" in *Annals of Emergency Medicine.*[1]

Dr. Thomas Hennebry addresses the recognized problem of the lack of large randomized trials that are designed to answer the question of thrombus removal in patients with extensive DVT. However, he indicates that when patients present with extensive DVT, that is not the time to criticize the lack of randomized trial design in previous studies. It is the time to treat the patient in the best possible manner based on the available information. What has been observed is that early thrombus resolution (restoring patency) preserves valve function[2] and appears to reduce recurrence.[3,4] Successful thrombus removal has also been shown to improve quality of life.[5,6]

Dr. Marc Glickman points out that, unfortunately, many physicians fail to recognize that not all DVT patients are the same and that many physicians believe that catheter-based therapies are prohibitively risky.

A number of important maneuvers that substantially reduce the risk of procedure-related complications are enumerated by Dr. Mahmood Razavi. These include ultrasound-guided micropuncture for vascular access with care not to traverse other vascular structures. Imaging of the inferior vena cava is crucial, because the presence of thrombus in the inferior vena cava might change how the procedure is performed or at least warrant embolic protection.

The panelists address a number of interventional techniques, including catheter-directed drip thrombolysis, rheolytic thrombectomy, ultrasound-accelerated thrombolysis, and isolated segmental pharmacomechanical thrombolysis using the double-balloon Trellis catheter (Covidien, Mansfield, MA). There appears to be a consensus that pharmacomechanical techniques improve thrombus resolution, shorten treatment times, and reduce the dose of lytic agents.

Finally, the panelists address the important issue of DVT prophylaxis. They recognize the importance of appropriate pharmacotherapy for preventing DVT while also acknowledging the significance of intermittent pneumatic compression in patients who are at increased risk of bleeding.

I hope that the readers will benefit from this roundtable discussion and the principles covered by these experts. Venous thromboembolism is a major health problem in the United States and seems to be increasing as the proportion of our population who falls into higher-risk groups is increasing. ■

—Anthony J. Comerota, MD

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