

INTERVIEW

# Dual Therapy Following Iliocaval and Iliofemoral Deep Vein Thrombosis Thrombectomy: An Interview With Dr. Gregg Khodorov

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At the 2023 Society of Interventional Radiologists (SIR) Annual Meeting in Phoenix, Arizona, PGY-3 Integrated Diagnostic/Interventional Radiology Resident Gregg Khodorov, MD, MBA, from Thomas Jefferson University Hospital in Philadelphia, Pennsylvania, presented results from a multi-institutional retrospective patency analysis that evaluated 1-year patency following iliocaval and iliofemoral venous recanalization and a standardized anticoagulation and antiplatelet regimen. The analysis was performed for 270 patients who underwent endovenous stenting at 2 high-volume institutions for chronic or post-thrombotic obstruction for 10 years, from May 10, 2012, to May 11, 2022. Post-intervention anticoagulation and antiplatelet regimens were analyzed, and demographic, baseline, procedural, and follow-up data were collected. Stent patency was evaluated via duplex Doppler ultrasound.

Kaplan-Meier analyses of overall patency, as well as primary, primary-assisted, and secondary patency for patients with 1-year follow-up, were performed.

The analysis concluded that patients with 1-year follow-up demonstrated 57% primary, 85% primary-assisted, and 92% secondary patency, suggesting that dual therapy is an acceptable postprocedural regimen to achieve 12-month patency in post-thrombotic iliocaval or iliofemoral venous disease.

*Vascular Disease Management* spoke with Dr. Khodorov to discuss the results of the study and what it means for dual therapy regimens for 12-month patency.

**Dr. Khodorov, tell us about the retrospective patency analysis results you're presenting at SIR 2023.**

The study is a multi-institutional analysis at 2 major hospitals, Thomas Jefferson University Hospital and Weill Cornell, over the course of 10 years. It looked at cases in which deep vein thrombosis (DVT) thrombectomy was performed, as well as post-thrombotic syndrome thrombectomy and iliocaval/iliofemoral reconstruction, so thrombectomy and stenting was included in our data pool. If you look at the literature, there's currently a lack of Level One evidence regarding which anticoagulation and antiplatelet regimen you should put a patient on after venous stenting. The primary question was, what antithrombotic regimen should patients be on after an intervention? We looked at 270 patients over the course of 10 years; 228 were included in the study and, among those, there was high

uniformity in the anticoagulation antiplatelet regimen. Ninety percent of the patients had 1 anticoagulant and 1 antiplatelet, and our patency rates were similar to those previously reported in literature.

The conclusion of our study was that, with this large dataset across 2 different institutions with a relatively uniform anticoagulation antiplatelet regimen, we had acceptable patency rates. We think that 1 anticoagulant and 1 antiplatelet—or dual therapy—is a reasonable medication regimen to put patients on after these procedures. Some of our patients had single therapy, some had dual therapy, and some had triple therapy but, by far, the biggest group was the dual therapy group.

We did additional analysis on bleeding risk. We looked at a bunch of other elements as well just to see if there was anything that stood out. Although we didn't show statistical significance, the bleeding risk overall was higher in the triple-therapy group, so we think that's probably less ideal and should be accepted only in a very particular patient population. The size of the sample in that group was small, which is probably why there was not enough statistical significance, but it's a start.

***Why did you want to study this?***

This is an area that the SIR Foundation has detailed as a research priority for the society because these procedures are becoming increasingly popular. Across multiple specialties, different physicians are performing ilio caval and iliofemoral thrombectomy and stenting. We are addressing a flow issue with thrombectomy and with stenting; however in the process you can cause intimal damage to the vessel, not to mention that the underlying cause for the patient's initial hypercoagulable state could still affect long-term patency. To us, it was important to get some data out there with a large population that had a relatively uniform medication regimen, just to show that although we can't necessarily say that the others are not reasonable medication regimens, we can say that dual therapy is fairly successful in maintaining patency in these patients.

We still need Level One evidence in this space. There are some trials going on now that I think will help, and there has been some data, but the jury's still out on how to properly treat these patients after the procedure. As interventionalists, we have to think about both the procedure and long-term outcomes. That was really the motivation behind the study.

***What is the one takeaway that you want the audience to get from your presentation?***

The major takeaway is that dual therapy, or 1 anticoagulant and 1 antiplatelet, is a reasonable medication regimen to put patients on to ensure 1-year patency after ilio caval and iliofemoral venous reconstruction.

***Are you planning any follow-up studies?***

Yes, we are continuing to collect information on patients as they come in and adding more data. Obviously, this is all retrospective, so the strength of the analysis is not as strong as a randomized controlled trial. I think there will be future analyses as we continue to add patients to our cohort, and we have plans to potentially add another institution. ■

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