

The Beat

DECEMBER 2020

A publication of the North American Thrombosis Forum

In Memoriam

NATF would like to dedicate this issue of *The Beat* to Rajan Laddu. Rajan passed away on November 8, 2020 after suffering a massive pulmonary embolism (PE).

Rajan had several PEs over the years and was actively involved with NATF. He worked tirelessly to promote blood clot awareness within his community, serving as a patient advocate and establishing the Global Thrombosis Forum (GTF) with his grandfather, Dr. Atul Laddu.

Throughout his life, Rajan faced physical health challenges and became determined to help others by going into the healthcare field. He graduated with honors from Washington University in St. Louis and was in his first year of podiatry school at Kent State University College of Podiatric Medicine. He had a passion for ancient Latin and Greek studies, film, music (especially classic rock), and writing poetry.

Rajan will be deeply missed by everyone in the NATF community.



Rajan Laddu

Food for Thought: Vitamins, Diet, and Anticoagulation

Tara Lech, PharmD is an Anticoagulation and Cardiovascular Clinical Pharmacy Specialist and currently serves as the Thrombosis Program Manager at Lahey Hospital and Medical Center in Burlington, MA. She recently joined NATF for an interactive *Ask the Expert* panel and

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A Brother, A Sister, and a Clotting Disorder: Joelle and Matthew's Story

In the spring of 2001, Matthew Hochman felt some unusual pain in his right calf. As an avid basketball player, he thought he'd pulled a muscle during a game. "My calf felt like a rock, and the pain persisted for several weeks and began to move up my leg. I called the doctor and was sent for an ultrasound. They found a pretty massive clot in my leg – it had

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NATF wishes you a happy holiday season!



Upcoming Support Groups and Events

Join us for our last blood clot support group of 2020

Temporarily online due to COVID-19

December 17, 2020, 7:00 PM EST

To register, email events@natfonline.org or call 617-730-4120.

Stay tuned for 2021 support group dates!



A BROTHER, A SISTER, AND A CLOTTING DISORDER: JOELLE AND MATTHEW'S STORY

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moved from my calf up to my mid-thigh," he recalls. "I was admitted to the hospital for 5 days, then sent home with a prescription for warfarin and was told to follow up with a hematologist."

What Matthew didn't know at the time was that his father is an asymptomatic carrier for protein S deficiency, a disorder that causes abnormal blood clotting. (See page 5.) "In addition, my uncle Stuart, my father's brother, had his first bout with deep vein thrombosis (DVT) at the age of 15 and also tested positive for protein S deficiency. He started taking warfarin as a teenager and has been on it for nearly 65 years. My family and I joke that Uncle Stuart is perhaps the longest living person on warfarin! His daughter (our cousin) also has this clotting disorder, so it clearly runs in our family."



Joelle and Matthew

About 6 months after Matthew's DVT, his older sister Joelle found herself in the hospital. "I was pregnant and developed preeclampsia (high blood pressure in pregnancy). My platelets were dropping and I had high protein levels in my urine, so the doctors decided to induce labor. I had a C-section and was very worried about having a blood clot. With our family history and all the things going on with my labor, it was a real concern," she says. "Matthew found out that he had protein S deficiency at that first follow-up appointment after his clot and was prescribed lifelong anticoagulation. I wasn't tested for the disorder because of my pregnancy. The doctor told me to wait until I was a few months postpartum."

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Tara Lech, PharmD

answered several questions about anticoagulation, vitamins, supplements, herbs, and food. If you take a blood thinner, here's what you should know.

Q: What can you tell us about interactions between anticoagulants and vitamins or nutritional supplements?

A: It's challenging to navigate the world of supplements, and that's why it's so important

to make your anticoagulation provider aware of any supplements that you're taking. Even though

supplements are available over the counter (OTC), it doesn't mean that they're risk-free. Some very common supplements and herbs can have a significant anticoagulation effect and may impact your body's ability to either clot or bleed. Another thing to keep in mind is that supplements are not regulated, so there may be differences in manufacturing that could affect risk as well.

Q: Which herbs or supplements most commonly interact with anticoagulation?

A: Some of the big ones that we see in my clinic are herbs, like turmeric, ginger, or garlic, and oils, like grapeseed oil, as well as some OTC supplements,

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Take Care in the Kitchen: Cooking Safely on Anticoagulation

Consume these spices and supplements in moderation if you take an anticoagulant.



Fighting blood clots
through education



CAYENNE

Contains salicylate, which is found in aspirin
Can impact bleeding risk if consumed in large amounts



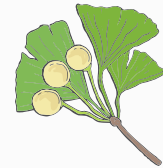
GARLIC

Can prolong bleeding time
Should not be used 7-10 days before surgery



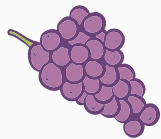
GINGER

Contains salicylate, which is found in aspirin
Can impact bleeding risk if consumed in large amounts



GINKGO BILOBA

Has some clot-busting properties
Can increase bleeding risk



GRAPESEED OIL

A natural anticoagulant
Can increase bleeding risk



ST. JOHN'S WORT

Can decrease effectiveness of warfarin
Can increase clot risk



TURMERIC

Contains a derivative called curcumin, similar to coumarin
Warfarin is derived from coumarin
Can increase bleeding risk



VITAMIN E

Large doses can decrease clotting factors in your blood
Can increase bleeding risk



such as ginkgo biloba and vitamin E. There are several things to consider before using these herbs or supplements. (See chart on page 3.)

Q: Since many herbs and spices are commonly found in foods or used in cooking, what should people be aware of if they're on anticoagulation?

A: Food interactions are more of a concern with warfarin than with direct oral anticoagulants (DOACs), and I always tell my patients to remember that taking warfarin isn't a "life sentence." While there can be some interaction between warfarin and the vitamin K in food, you can still eat what you want in moderation. It's important to know that you don't have to eat the same exact things every day, you don't have to count how much vitamin K is in every food you eat, and you can enjoy your favorite herbs and spices. I wouldn't recommend eating 10 cloves of garlic every night – but you probably wouldn't want to do that anyway!

The same thing goes with alcohol. We are not saying that you can never have a drink because you're on a blood thinner – we just recommend drinking in moderation. If you know you're going to be drinking a little more than normal—around the holidays, for example—then you might not want to schedule your INR* test for the next day because you need to give your body time to level out. However, I do caution patients that if you take warfarin and have more than two drinks a night, you're increasing your risk of bleeding. So again, I can't stress enough that moderation is key, and your care team is always happy to connect you with resources if you need help cutting back.

Q: With cold and flu season and, of course, the COVID-19 pandemic, vitamins C and D have been

in the news. What can you tell us about using these vitamins when taking anticoagulation?

A: If you're taking supplemental doses of vitamin C or D, we wouldn't ask you to stop that – we would just note it in your patient record and see how you respond. During cold and flu season, many patients take vitamins C and D in hopes of boosting their immune system and improving their overall health. There is no evidence that these vitamins will lessen your risk of getting either the flu or COVID-19, but we do know they're essential to a healthy immune system, along with rest, hydration, and proper nutrition. It's important to let us know what immune boosters and vitamins you're taking, so that we can make sure they don't interact with your anticoagulation, or with one another.

Q: Finally, laws are changing across the country and people have more access to cannabis and CBD than ever before. Is there any evidence that these products affect anticoagulation?

A: First, I think that we really need to destigmatize talking about cannabis and CBD, precisely because of the increased access to these products. You shouldn't be afraid to tell your provider if you're regularly using marijuana or CBD oils, tablets, or other edible products. In fact, you really need to be telling us because there is evidence that cannabis and CBD can interact with certain medications, including blood thinners.

For starters, cannabis has the potential to:

1. Inhibit platelet production, leading to an increased risk of bleeding
2. Decrease the effects of antiplatelet medications by slowing down the metabolism and increasing the risk for a cardiac event
3. Increase the effects of warfarin, resulting in a higher INR and an increased risk of bleeding
4. Increase the effects of DOACs by slowing down the metabolism of the medication and increasing your risk for bleeding

Remember that as providers, we're here to help you. Shared decision-making is very important in the anticoagulation world, but for us to make decisions with you, we need to know what you're using in combination with your anticoagulation. We want to tailor care, make sure that you're safe, and help you achieve all of your healthcare goals. ■

*INR = international normalized ratio, a level that measures how much time it takes for your blood to clot. Most patients need to maintain an INR level between 2 and 3 to be considered in "therapeutic" (or target) range. An INR below the therapeutic range increases the risk of clotting, while an INR above 3 increases the risk of bleeding. INR levels are only monitored in patients who take warfarin and are not useful in patients who take DOACs.



Shortly after delivering her baby, Joelle started having pain in one of her calves. "I was nervous. I asked practically everybody that would come in my hospital room if this pain was normal. I told everyone that I had a family history of blood clotting and that my brother just had a DVT. It felt like no one was taking me seriously. I was just encouraged to walk around as much as I could," she explains.

A week later, Joelle brought her daughter to their family doctor for a newborn checkup and mentioned that her leg pain hadn't gone away. The doctor ordered an ultrasound, which came back negative. "At that point, I felt like a hypochondriac. I thought, alright, I'll get a massage or some body work and it will help. I started wearing compression stockings that went all the way up to my thigh, too."

As the end of the year approached, Joelle's leg pain began radiating to her groin. She was becoming progressively short of breath and noticed that she was also having pain in her chest and back. "I'd never had pain like this before – I was basically crouching in my hallway. My doctor was away for the holidays, so I spoke to his associate on the phone. She thought that the pain may have been coming from nursing my daughter, or from my C-section, and told me not to come in. I admit that I kind of downplayed my symptoms because I was an otherwise healthy woman who never really had any medical issues."

At the urging of a friend many days later, Joelle went to the emergency room. Despite her negative ultrasound a few weeks earlier, the doctors found several emboli throughout both lungs. She was admitted to the hospital, started on anticoagulation, and discharged with heparin shots. A few months later, a blood test confirmed that she—like her brother, uncle, and cousin—had protein S deficiency.

After a follow-up with a hematologist, Joelle started taking warfarin. "My clots were considered to be

heavily provoked by my pregnancy and labor/delivery. Given those factors, my doctor and I came to the decision that I would only stay on warfarin for 6 months."

Fast-forward to January 2018. It had been 17 years since Matthew and Joelle had their initial blood clots. Matthew was doing well on his warfarin and hadn't had any recurrent clots. Joelle, on the other hand, remembers standing on her tip-toes one day to reach for something and feeling an intense charley horse in her calf. An ultrasound later confirmed that she had a DVT.

WHAT IS PROTEIN S DEFICIENCY?

When you bleed, there are chemical reactions involving proteins (called coagulation factors) that activate to stop the bleeding. Protein S helps regulate these reactions to protect your body from excessive blood clotting. Blood may clot abnormally without protein S, resulting in a DVT or PE. This disorder can be acquired but is usually inherited (caused by a genetic mutation).

[U.S. National Library of Medicine – MedlinePlus. 2020.](#)

"My experience with blood clots has been a huge wakeup call. When I think back to my first clot, I wasn't able to take my symptoms seriously. I was worried about being a burden, and that was more of a concern than my own health – even though I had a life-threatening situation. I still struggle with this issue, and I think women sometimes minimize their symptoms and pain and put other things ahead of their health. I've since made a pact with myself that if I'm worried about another blood clot, I'm

going to act. I'm going to call the doctor and get an ultrasound. An ultrasound isn't putting anybody out in the grand scheme of things."

"I echo my sister," says Matthew. "Regardless of having a clotting disorder, you have to take your own health seriously and really advocate for yourself."

Joelle and Matthew have both started to see a vascular medicine specialist for annual check-ins. Matthew has transitioned from warfarin to rivaroxaban (Xarelto), and Joelle has also started taking rivaroxaban daily. She is now a respiratory therapist, in part due to her experience with PE. "I'd tell any of my patients not to doubt themselves and to get help if they're having a respiratory issue or pain. Even if it turns out to be nothing serious, it's better to be safe than sorry." ■



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