

Thrombosis: What You Need to Know

Recorded: October 10, 2024

Transcript

[0:00 Introduction]

Dr. Wendy Lim: Do you really know what a blood clot is? Here's what you need to know about thrombosis. My name is Wendy Lim and I am a hematologist and professor in the Department of Medicine at McMaster University.

[What is thrombosis? 0:12]

Dr. Wendy Lim: Thrombosis is the formation of a blood clot in a blood vessel. The clot that forms is called a thrombus, and the blood vessel can be an artery or a vein. When thrombosis occurs, it can slow or block the flow of blood, or the thrombus can break off and travel through the blood vessels to another part of the body. The clot that breaks off is known as an embolus. Because blood carries oxygen, when a thrombus or embolus blocks the flow of blood, oxygen cannot be delivered to the organ that the vessel is supplying. If that vessel supplies organs such as the brain or heart, a stroke or heart attack can develop.

The symptoms of thrombosis depend on where the thrombus or embolus occurs. The most common type of venous thrombosis is deep vein thrombosis, and most of these occur in the leg veins. Deep vein thrombosis usually presents with leg pain, swelling, and redness. Deep vein thrombosis can embolize to the lung circulation. This is called a pulmonary embolism and usually presents with difficulty breathing or rapid breathing, chest pain, and possibly coughing up blood. 1 in 4 people die of conditions related to thrombosis. That's why it's incredibly important to prevent thrombosis, recognize the symptoms if it occurs, and receive prompt and effective treatment for thrombotic disease.

[How is it prevented? 1:28]

Dr. Wendy Lim: Preventing deep vein thrombosis and pulmonary embolism, together known as venous thromboembolism, is done using low-dose blood thinners or anticoagulants. Anticoagulants should be given to people who are at risk of venous thromboembolism. These include people who are admitted to the hospital, those who have major surgery, a specialty trauma surgery or joint replacement surgery, and in some people with cancer, to name a few. It is important for people in these categories to recognize the signs and symptoms of venous thromboembolism so they can seek medical attention.

[How is it treated? 2:02]

Dr. Wendy Lim: If venous thromboembolism occurs, prompt treatment with full-dose anticoagulants can be lifesaving. In some cases, clot-busting drugs or thrombolytic therapy may be used. Research on preventing thrombosis in high-risk patients, new anticoagulant drugs, and additional therapies to treat thrombosis is being done at many centers, including McMaster. McMaster scientists are also working to understand the mechanisms of thrombosis, inflammation, and infection, with the goal of translating research into new and innovative therapies to improve the lives of the millions of people globally affected by thrombosis.

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