

MEDICAL BREAKTHROUGHS

RESEARCH SUMMARY

TOPIC: **BUSTING BLOOD CLOTS IN KIDS**

REPORT: **MB #4714**

BACKGROUND: Thrombosis is a blood clot, parts of the blood form together to create a seal for a wound, but there can be chemical changes in the blood that cause this clot to happen, which stops the flow of blood in a vessel. This is a serious issue, especially when a clot blocks a major vein or artery. There are three usual forms of blood clots, which are deep vein thrombosis (DVT,) cerebral sinovenous thrombosis, and pulmonary embolism (PE). DVT is when there is a clot in a large vein inside the body. Symptoms include sudden swelling, soreness, or pain in an area of the body, or change of skin color to red, pale, or bluish skin, or coolness or warmth over an area. For cerebral sinovenous thrombosis, the main symptom is a severe headache that is unusual and causes blurred vision. For PE, symptoms for a blood clot may be breathing difficulty, chest pain, fast heartbeat, sweating, coughing, fever, or fainting. (Source: <http://www.danafarberbostonchildrens.org/conditions/blood-disorders/thrombosis.aspx>)

DIAGNOSIS: Imaging is done when thrombosis is suspected in a child. This may be in the form of a physical exam, an ultrasound, which uses high frequency sound waves and their echoes, an MRI (Magnetic resonance imaging,) which uses a large magnet and radio waves via a computer, a CAT scan, which uses x-ray equipment, blood samples, or a genetic test to see if it is a hereditary disorder. (Source: <http://www.danafarberbostonchildrens.org/conditions/blood-disorders/thrombosis.aspx>)

TREATMENT: Currently, doctors prescribe the blood thinner, Warfarin, which comes in tablet form. Since a side effect is that it increases the risk of bleeding, there still have to be regular blood checks for the level of Warfarin. If it's too high, the risk for bleeding gets very high. If it's too low, the patient is not being treated. There must be blood tests run once a week every two weeks. (Source: <https://www.drugs.com/warfarin.html>)

RIVAROXABAN: Doctors at Children's Hospital Los Angeles have created a new prescription drug that is easier to take, doesn't interfere with other drugs, and doesn't require blood tests as often. Rivaroxaban, also known as Xarelto, comes in liquid form and a dosage is prescribed according to age group. Rivaroxaban is FDA approved for patients 18 years and older. It is not approved at this point in time for children. (Source: <https://www.webmd.com/drugs/2/drug-156265-1153/xarelto-oral/rivaroxaban-oral/details>)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com