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The full report is titled "Predicting Deep Venous Thrombosis in Pregnancy: Out in 'LEFt' Field?" It is in the 21 July 2009 issue of *Annals of Internal Medicine* (volume 151, pages 85-92). The authors are W.S. Chan, A. Lee, F.A. Spencer, M. Crowther, M. Rodger, T. Ramsay, and J.S. Ginsberg.

Predicting Deep Venous Thrombosis in Pregnancy

What is the problem and what is known about it so far?

Blood clots can form in the leg veins, causing symptoms and occasionally death. The main symptom is leg swelling. Clots can leave the leg veins and travel to the heart and lungs where they can cause death. Clots that stay in the leg veins can damage them so that the legs stay painfully swollen for the rest of the patient's life. Diagnosing and treating blood clots can prevent these problems. Leg scan tests for blood clots are accurate, but their interpretation depends on how likely the patient is to have blood clots. Researchers have identified factors, such as a history of blood clots or tenderness in the affected leg, that increase the likelihood that a patient has blood clots and make it easier to interpret the leg scan test results. Pregnancy increases the risk for blood clots in the legs, but no one has studied what factors to check for when a pregnant woman reports painful leg swelling.

Why did the researchers do this particular study?

To find out what clinical factors (history and physical examination) may predict the presence of blood clots in pregnant women.

Who was studied?

194 pregnant women at 5 Canadian medical centers over 8 years.

How was the study done?

The pregnant women were initially seen by internists, obstetricians, and emergency department doctors, who became suspicious of blood clots and called the researchers who were doing the study. These researchers, who were experts in diagnosing blood clots in the legs, took a history, did a physical examination, and estimated the probability that the women had blood clots. They then did leg ultrasonography, which is an accurate test for blood clots.

What did the researchers find?

Seventeen women (8.8%) had blood clots. The cases occurred with equal frequency in all 3 trimesters of pregnancy. The most important predictors of blood clots were 1) being in the first trimester of pregnancy; 2) leg swelling severe enough to cause the lower leg to be at least 1 inch bigger around in the leg where the blood clot was located; and 3) symptoms in the left leg. Women who did not have any of these findings did not have blood clots.

What were the limitations of the study?

Only 17 women had blood clots, which leads to considerable uncertainty about the study findings. In other words, if 17 other women had had the blood clots, the results might have been different, simply because several small samples of anything are more likely to differ from each other than several large samples.

What are the implications of the study?

Although pregnancy increases the risk for blood clots, they are still uncommon, even in pregnant women reporting leg swelling. Pregnant women and their doctors need to be aware of the 3 findings that predict blood clots.

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