

64. Legg-Perthes disease and thrombophilia

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Q: "I am a 47 year old female diagnosed with heterozygous factor V Leiden after having 2 DVTs a couple of years ago. I also would like to add that I was diagnosed with having Legg-Perthes disease when I was 5 years old. I recently found an article regarding Legg-Perthes disease and a possible link with thrombophilia. I'd be very interested to hear more about such a link, if, in fact, there is one."

A: The evidence for a link between clotting abnormalities and Legg-Perthes disease is weak and inconsistent. Thrombophilias do not appear to be major causes of Legg-Perthes disease. From the data available to date it does not appear justified to test patients with Legg-Perthes disease for the various thrombophilias.

Legg-Perthes disease is a disorder occurring in children, in which interruption of blood flow (= ischemia) to the head of the thigh bone leads to death of that bone (= necrosis) and to poor hip joint function. Some relatively small studies have found a hint of evidence that patients with thrombophilias, such as protein C deficiency, factor V Leiden, and possibly protein S deficiency, have an increased risk of Legg-Perthes disease 1,2. Other small studies have not found an association between thrombophilia and Legg-Perthes disease 3,4. Taking these studies together it appears fair to conclude that thrombophilias do not seem to be major causes of Legg-Perthes disease.

References

1. The role of protein C, protein S, and resistance to activated protein C in Legg-Perthes disease. *Pediatrics* 2001;107:1329-34. (57 patients studied).
2. Inherited risk factors for thrombophilia among children with Legg-Calve-Perthes disease. *Journal of Pediatric Orthopedics* 1999;19:84-7. (61 children studied).
3. Does thrombophilia play an aetiologic role in Legg-Calve-Perthes disease? *Journal of Bone & Joint Surgery - British Volume* 1999;81:686-90. (62 patients studied).
4. Prospective reevaluation of the association between thrombotic diathesis and Legg-Perthes disease. *Journal of Bone & Joint Surgery - American Volume* 2002;84-A:1613-8.