Clinical Case Study

Evaluation of a Prolonged Prothrombin Time

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CASE DESCRIPTION

A 47-year-old African American woman was evaluated for a prolonged prothrombin time (PT) result obtained before she underwent right total hip arthroplasty. The patient had no history of gastrointestinal or intracranial bleeding, epistaxis, or hemarthrosis. However, she reported a tendency toward easy limb bruising and menorrhagia, which required iron supplementation. She had a negative family history of abnormal bleeding. Initial laboratory studies included findings within reference intervals for complete blood cell count and activated partial thromboplastin time (aPTT) (30.8 s, reference interval 23–36 s), prolonged PT (20.3 s, reference interval 11.0 –15.0 s), and International Normalized Ratio (INR) (1.78, reference interval 0.9 –1.2). No preanalytical artifacts were identified, and the result of a repeat PT was also prolonged.

Questions to Consider
• What are some of the preanalytical causes of inaccurate PT and aPTT results?
• If the prolonged PT is an accurate result, what coagulation tests should be done to determine the specific cause?
• If these results are due to an inherited coagulation deficiency, which clotting factor is most likely to be involved?

Final Publication and Comments

The final published version with discussion and comments from the experts will appear in the April 2008 issue of *Clinical Chemistry* in approximately 3-4 weeks. To view the case and comments online, go to http://www.clinchem.org/content/vol54/issue4/ and follow the link to the Clinical Case Study and Commentaries.

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Educational Centers

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