Excess Factor VIII and Hypercoagulability

To the Editor: The author of this article¹ states that “This is a report of 3 cases of thromboembolism not associated with conventional risk factors (trauma, cancer, or immobility). The patients were found to have elevated factor VIII activity without other evidence of a hypercoagulable state.”

I would respectfully disagree that the patients show no evidence of any other hypercoagulable state. The antithrombin level was low in all 3 patients and could constitute a prothrombotic risk factor. In addition, the known risk factors, factor V Leiden and the prothrombin gene mutation, were not evaluated. Thus, we do not know whether the patients had these common risk factors.

The author also quotes sources to support the contention that “Elevated factor VIII levels have been found to persist over time and to be independent of the acute phase response.”

This statement is a little misleading in the context of the current report. Previous studies found that even though factor VIII (FVIII) is an acute phase reactant, elevated FVIII levels persisted in some patients with thrombosis after an acute inflammatory stimulus had resolved. In addition, those authors compared FVIII levels with other acute phase reactants (ie, fibrinogen and C-reactive protein [CRP]) to determine whether there was evidence of concurrent acute inflammation. They only considered FVIII level to be an independent (not inflammation-related) risk factor for thrombosis when levels of other acute phase reactants were not elevated. The current study did not verify, by measuring CRP or fibrinogen levels, that the patients did not suffer from an inflammatory state that could have elevated FVIII levels.

Thus, it would have been very useful to know the CRP and fibrinogen levels for the patients reviewed in this report. Previous studies found that even though factor VIII (FVIII) is an acute phase reactant, elevated FVIII levels persisted in some patients with thrombosis after an acute inflammatory stimulus had resolved. In addition, those authors compared FVIII levels with other acute phase reactants (ie, fibrinogen and C-reactive protein [CRP]) to determine whether there was evidence of concurrent acute inflammation. They only considered FVIII level to be an independent (not inflammation-related) risk factor for thrombosis when levels of other acute phase reactants were not elevated. The current study did not verify, by measuring CRP or fibrinogen levels, that the patients did not suffer from an inflammatory state that could have elevated FVIII levels.

Robert S. Bobrow, MD
Department of Family Medicine
Stony Brook University
Stony Brook, NY

References

