The relationship of the factor V Leiden mutation or the deletion-deletion polymorphism of the angiotensin converting enzyme to postoperative thromboembolic events following total joint arthroplasty

ABSTRACT

The study indicates that pharmacological thromboprophylaxis recipients with both hip and knee surgeries are at an increased risk of symptomatic thomboembolic events, respectively, rather than the two potentially hypercoaguable states.

INTRODUCTION

There is a large amount of evidence that shows that the risk factors for postoperative thromboembolism are not well understood. The risk factors for postoperative thromboembolism are most likely to be found in the postoperative setting. This is Following total hip and knee arthroplasty, patients are at high risk of thromboembolic complications; however, studies suggest that deep venous thombosis is still occurring 10 to 40% of the time after such surgery (and a high incidence of peripheral blood perforation after hemodialysis [C]PR), and early detection of this is crucial because the high rate of disease despite prophylaxis does not allow for treatment with anticoagulation until several weeks after the operation. Neither DVT nor PE have any specific clinical features or symptoms that make the clinical diagnosis highly sensitive and specific. A high level of suspicion based on risk stratification is required for detection and appropriate implementation of diagnostic studies to identify this complication. Preoperative identification of a subset of patients undergoing adult reconstructive surgery who are at heightened risk of developing thromboembolic complications would enable clinicians to make an accurate diagnosis and allow for further research to determine optimal treatments and preventive measures. Prior to the study of the Leiden Thrombophilia Study, only a few rare genetic disorders of this type (antithrombin III, protein C, and protein S deficiency) were classified as hypercoagulable, as these patients from three families suffered from recurrent venous thrombosis. In 1993, Dahlback et al. described an autosomal-dominant defect in the anticoagulant function of factor V that caused 80% of DVT cases with'significant risk, which is ten times different risk for patients The angiotensin converting enzyme has been found to be hypercoaguable due to its polymorphisms. Despite the fact that most patients who undergo total hip and knee arthroplasty have similar perioperative risk factors for thromboembolism, only a minority experience this disease. The aim of this research was to determine whether the FVL mutation or the deletion polymorphism of the ACE gene is linked to heightened risk of postoperative thamboEmbolic event.

CONCLUSION

Remarkable conclusions This study sought the genetic profile associated with a higher risk of postoperative thromboembolic complication: "While our evidence shows that both hypocoaguable states are not linked to increased risk after total hip or knee arthroplasty in patients on pharmacological Thromboprophylaxis, there may be an unrelated genetic or predisposition that is more likely to cause hypercoagulation in these patients."